3 Coast Guard
Marine Corps
Navy

The 1980 GUIDE to the EVALUATION of EDUCATIONAL EXPERIENCES in the ARMED SERVICES

Awarding Credit For Extrainstitutional Learning

The following statement by the ACE Commission on Educational Credit and Credentials has been approved by the ACE Board of Directors and endorsed by the Council on Postsecondary Accreditation.

The American Council on Education recommends that postsecondary education institutions develop policies and procedures for measuring and awarding credit for learning attained outside their sponsorship.[1]

American society abounds in resources for learning at the postsecondary level. Public, private, and proprietary education institutions exercise the central but not exclusive responsibility for instruction and learning. Associations, business, government, industry, the military, and unions sponsor formal instruction. In addition, independent study and reading, work experiences, the mass media, and social interaction contribute to learning and competency.

Full and effective use of all educational resources is a worthy educational and social goal. Achieving this goal will depend to a large extent on providing equitable recognition for extrainstitutional learning:

- Educational credentials have a significant bearing on the economic, professional, and social status of the individual. Thus, social equity requires that equivalent learning, regardless of where and how it is achieved, be incorporated into the system of records for learning and competency, and
- Recognition encourages learning and contributes to pedagogical effectiveness. Teaching students what they already know is both stultifying to them and wasteful of educational and personal resources.

Postsecondary education institutions legally authorized and accredited to award degrees and other educational credentials have a special responsibility to assess extrainstitutional learning as part of their credentialing function.

In the development of institutional policies and procedures, the American Council on Education recommends the following guidelines.

Guidelines

1. Reliable and valid evaluation of student achievement is the sine qua non in awarding credit. Experience, whether acquired at work, in social settings, in the library, at home, or in the formal classroom, is in itself an inadequate basis for awarding credit. Increased attention in choosing evaluation procedures and techniques and more thorough evaluation are necessary when learning has been attained without participation in a program of study prescribed by an educational institution and offered by its faculty.
2. In determining whether it is appropriate to accept a student's extrainstitutional learning for credit, the governing considerations should be its applicability to the student's program of study, including graduation requirements, and the relationship of the learning to the institution's mission, curricula and standards for student achievement. Learning should be articulated, documented and measured in these terms.
3. Institutions should evaluate extrainstitutional learning only in subject-matter fields in which they have or can arrange for faculty expertise or where they can rely on nationally validated examinations or other procedures for establishing credit equivalencies. Institutions should award credit in these areas only if the quality of learning meets their standards for student achievement. Normally, institutions should evaluate learning and award credit only in subject fields in which they offer courses or curricula. However, if the acquisition of college level learning outcomes has been demonstrated in an area not taught by the institution, but related to the student's program of study, an exception may and ought to be made.
4. Institutions awarding credit for extrainstitutional learning should develop clearly stated policies regarding administrative responsibility, student eligibility, means of assessment, recording of results on transcripts, storage of documentation, student fees, and maximum number of credits allowable. Information on these and related institutional policies and procedures should be disseminated to students and faculty for maximum awarenesss and utilization.
5. Institutional policy should include provision that the institution's policies and procedures for awarding credit for extrainstitutional learning should be subject to periodic reevaluation.

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[1] "Extrainstitutional learning" is defined as learning that is attained outside the sponsorship of legally authorized and accredited postsecondary educational institutions. The term applies to learning acquired from work and life experiences, independent reading and study, the mass media, and participation in formal courses sponsored by associations, business, government, industry, the military, and unions.

3 Coast Guard
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The 1980 GUIDE to the EVALUATION of EDUCATIONAL EXPERIENCES in the ARMED SERVICES

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of the American Council on Education

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Foreword

For more than thirty-five years, the *Guide to the Evaluation of Educational Experiences in the Armed Services* has been the standard reference work for recognizing learning acquired in military life. ACE has worked cooperatively with the Department of Defense and the armed services in assisting hundreds of thousands of servicemen and women to achieve recognition for their learning. The long-term success of the *Guide* evaluation system for military training has resulted in it serving as a model for the evaluation of programs offered by other noncollegiate organizations, including business, industry, government agencies, voluntary and professional associations, and labor unions. Collectively, these efforts are resulting in students combining extra-institutional learning opportunities with study at postsecondary institutions to achieve degree-related educational objectives. Not only is this sound educational practice, it is also an efficient use of educational resources and an incentive for the persons affected to undertake further study.

Special recognition must be paid to hundreds of individuals who have served as evaluators and the many educational institutions, professional and disciplinary associations, and the apprenticeship training community for their wholehearted cooperation in this endeavor. Without their support and assistance, the *Guide* would not have been possible. We are greatly indebted to them.

Once again, we are pleased to commend this work to you in your continuing work with servicemen and women and veterans.

J. W. Peltason
President
American Council on Education

How to Find and Use Course Exhibits

This volume contains recommendations for formal courses offered by the Coast Guard, the Marine Corps, the Navy, and the Department of Defense. The instructions that follow provide a step-by-step procedure for finding and using the exhibits and recommendations. Readers unfamiliar with the ACE evaluation procedures should read Appendix A. Additional information in using the *Guide* and awarding credit is provided in the Questions and Answers section.

Step 1

Have the applicant complete a "Request for Course Recommendation" form.

A "Request for Course Recommendation" form appears at the back of this volume. It may be reproduced and should always be filled out by the applicant, using the information provided on official and personal records, as well as the applicant's own knowledge of the service course. *Applicants should never refer to the Guide while completing the form.*

(See questions 4 through 8 in Questions and Answers.)

Step 2

Verify course completion from military records.

It is the responsibility of the school official to verify course completion. The following military records are normally used to verify successful completion of course requirements:

1. DD Form 295, "Application for the Evaluation of Educational Experience During Military Service"—available to active-duty service personnel from military education officers. (Form must be certified by an authorized commissioned officer or his designee in order to be official.)
2. DD Form 214, "Armed Forces of the United States Report of Transfer or Discharge"—available to veterans, together with other in-service training records, from the General Services Administration, National Personnel Records Center (Military Personnel Records), 9700 Page Boulevard, St. Louis, Missouri 63132.
3. Course Completion Certificates—may be used to complement other records or when service courses are not recorded on official records.

(See questions 1, 3, 10, and 27 in Questions and Answers.)

The following steps refer to a "course exhibit." See sample course exhibit, page ix.

Step 3

Find the course exhibit by identifying the OECC ID Number in the Course Number Index or the Keyword Index.

A. *Course Number Index.* All available military course numbers are listed in the Course Number Index in alphanumeric sequence. If the applicant's military course number cannot be located in the Course Number Index, search for the course title in the Keyword Index.

B. *Keyword Index.* Identify all possible keywords within a formal course title. For example, the keywords in the title, "Ground Radio Communications Equipment Technician," are *Radio, Communications,* and *Ground.* Find one or all of those keywords in the Keyword Index and search the listing under the keyword for the course title. *If the title cannot be found under one keyword, search all other possible keywords.*

C. *Identify OECC ID Number.* When the title or military course number has been located, note the corresponding OECC ID Number. This number refers to the course exhibit's location in the *Guide.* The two-letter prefix refers to the section of the Course Exhibits chapter, i.e., CG=Coast Guard section; DD=Department of Defense section; MC=Marine Corps section; and NV=Navy section. Within each section, OECC ID Numbers are presented in numeric sequence.

(See question 2 in Questions and Answers.)

Step 4

Match the course identifying information with the corresponding data in the course exhibit.

Course identifying information includes the official military title, military course number, length of course, dates of attendance, location, etc., and is provided by the applicant on the "Request for Course Recommendation" form. When the course exhibit consists of multiple versions, determine which version applies to the applicant's course by considering exhibit dates and course length. It is important to match all items.

(See questions 6, 7, 8, and 12 in Questions and Answers.)

Step 5

Read the course objectives and description.

Consideration should be given not only to the amount of credit and to the subject area, but also to the course objectives and description which are part of the course exhibit. These portions of the exhibit outline the course content and scope and also provide essential information about the nature of the course. This information is essential to you in determining the appropriate placement of credit for each individual student within the requirements and programs at your school.

(See question 9 in Questions and Answers.)

Step 6

Award credit, as appropriate.

Users are free to modify the credit recommendations in accordance with institutional policy and the educational goals of each individual applicant.

(See questions 11 and 19–25 in Questions and Answers.)

Step 7

When assistance is required, contact the Office on Educational Credit and Credentials.

Whenever problems arise in Steps 1 through 6, and assistance is desired, contact the OECC Information Service at:

Office on Educational Credit and Credentials
American Council on Education
One Dupont Circle
Washington, DC 20036
ATTN: Military Evaluations
(202) 833–4685

Sample Course Exhibit

NV-0701-0006

1. Dental Technician, Basic, Class A
2. Class A General Dental Technician School
   (Dental Technician, General, Class A)

Course Number: *Version 1:* B-330-10. *Version 2:* None.

Location: *Version 1:* Dental Technician's School, San Diego, CA. *Version 2:* National Naval Medical Center, Bethesda, MD.

Length: *Version 1:* 12 weeks (480 hours). *Version 2:* 16 weeks (557-600 hours).

Exhibit Dates: *Version 1:* 12/67-Present. *Version 2:* 3/61-11/67.

Objectives: To train enlisted personnel to assist dental officers and to qualify for the dental technician rating.

Instruction: Lectures and practical exercises in basic sciences, preventive dentistry, casualty care, dental administration, radiography, and dental assisting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in dental assisting on the basis of institutional examination (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in dental assisting on the basis of institutional examination (2/74). *Version 2:* In the vocational certificate category, 5 semester hours in dental assisting on the basis of institutional examination (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in dental assisting on the basis of institutional examination (2/74).

ID Number. A number assigned by OECC to identify each course.

Military Course Number. The number assigned to the course by the military. Listed by version.

Length: The length of the course in weeks, with contact hours in parentheses; by version.

Exhibit Dates: The start and end dates, by month and year; by version. When course was first evaluated and when, if applicable, it was eliminated. "Present" denotes publication cut-off for this edition of the *Guide* (3/80).

Instruction. Description of instruction, including teaching methods, facilities, equipment, major subject areas covered. Normally applies to all course versions; occasionally a note may be added regarding a specific version. Listed by version. In some instances will apply to all versions.

Course Version Numbers and Titles. Version 1 is the most recent. If course has only one version, version number is omitted throughout exhibit.

Alternate Titles. In parentheses under the more recent title.

Location. By version. The service school, military installation, state.

Objectives. The purpose for which the course was designed; applies to all versions.

Credit Recommendation. By version. Given in four categories: vocational certificate; lower-division baccalaureate/associate degree; upper-division baccalaureate; and graduate degree. Expressed in semester hours. (See Appendix A for detailed explanation of credit categories.)

Evaluation Date: Date when the credit recommendation was established, month and year, in parentheses following each recommendation.

***Important:** The appropriate course version can be found by using the course title and number, its length, exhibit dates, and location.*

How to Find and Use Navy General Rate and Rating Exhibits

This volume contains exhibits for Navy general rates and ratings evaluated through January 1, 1980.

The following instructions provide a step-by-step procedure for finding and using general rates and rating exhibits and recommendations. If you are unfamiliar with Navy general rates and ratings—how they are structured and how occupational proficiency is demonstrated—you should read Appendix A. Additional information on general rates and ratings is provided in the Questions and Answers section.

Step 1

Have the applicant submit official Navy documentation to you.

For enlisted personnel, occupational history is recorded in item 8 of NAVPERS 1070/604, "Navy Occupation/Training and Awards History." (This form is sometimes referred to as Page 4 of the service record by Navy men and women.) Item 8 contains the following relevant information: the general rate or rating from which advanced or changed, the new general rate or rating, and the effective date of the advancement or change.

As an alternative, Navy enlisted persons may submit DD Form 295, "Application for the Evaluation of Educational Experiences During Military Service," when it includes the necessary occupational information. Although the present edition of the form was not designed to document general rate and rating proficiency, it is acceptable when the section, "Major Service Jobs and Billets," includes the following information: (1) the general rate or rating designation, (2) the general rate or rating title, and (3) the date of advancement. (A new edition of the form is being prepared which will provide space for military occupational information.) A person still in active or reserve service may request that DD Form 295 be completed by the education services officer and certified by the personnel officer at the unit to which assigned.

DD Form 214, "Armed Forces of the United States Report of Transfer or Discharge," is also acceptable for documentation. However, it does not contain the occupational history, which you may need.

Navy records must be requested by the individual. Records may be obtained as follows:

Active-duty Navy men and women. The Navy unit to which assigned.

Navy Reservist (Non-drilling) or retired personnel. The Naval Reserve Personnel Center (Code 41), 4400 Dauphine Street, New Orleans, Louisiana 70149.

Navy veteran. The original of the "Navy Occupation/Training and Awards History" form and the DD Form 214 is given to the veteran at time of discharge. If the veteran does not have them, duplicate copies may be obtained from General Services Administration, National Personnel Records Center (Military Personnel Records), 9700 Page Boulevard, St. Louis, Missouri 63132. The veteran may request service records by submitting U.S. Government Standard Form 180, which may be obtained from a state's veterans affairs office, the Veterans Administration, or the National Personnel Records Center.

Step 2

Referring to military records, verify each general rate and rating the person has successfully held.

A. Eligibility for the recommendation is easily determined. Advancement means that the person is automatically eligible for the general rate or rating recommendation; that is, to be advanced, the person had to demonstrate occupational proficiency by meeting all the requirements for advancement, including passing written and performance tests. (See questions 13–15 in Questions and Answers.)

B. Find the information necessary for locating the correct exhibit(s): the general rate and rating designations and the date of advancement to each. (See question 16 in Questions and Answers.)

Step 3

Find the appropriate general rate or rating exhibit in the Guide.

The exhibit for a given general rate or rating can easily be found when the designation is known. Each general rate and rating exhibit is assigned an OECC ID number that has three components. The first component, *NER,* identifies the exhibit as one that pertains to Navy enlisted general rates and ratings. The second component consists of the general rate or rating designation, e.g., SN, QM, or AME. The third component, a three-digit, sequentially assigned number, e.g., 001, uniquely identifies the exhibit. Navy exhibit ID numbers have either eight or nine characters, depending on the rating designation; e.g., NER-QM-001 and NER-AME-001.

When the title of the general rate or rating is known, the exhibit ID number can be found by referring to the *Navy Occupational Title Index.*

There may be more than one exhibit for some ratings. Each time there is a new recommendation for a rating or another evaluation is pending, there is a new exhibit. For example, two exhibits appear for the rating AS. The OECC ID numbers for the two exhibits are NER-AS-001 and NER-AS-002. The oldest exhibit for a rating, the first to be evaluated, is assigned -001 as the last three characters. The last exhibit for a rating, the exhibit ending in the highest number, is the most recent. (See questions 17 and 18 in Questions and Answers.)

Step 4

Read the entire general rate or rating exhibit.

In order to apply a given recommendation to the student's program of study at your institution, you must first read the entire exhibit. Each item in the exhibit has been prepared to help you identify or interpret the recommendations. (See the sample exhibit.) Two items, career pattern and description, will be particularly helpful to you.

The descriptions, which are similar to learning outcome statements of postsecondary courses and programs of study, will provide you with essential information about the learning required for proficiency in the general rate and rating. Comparing the general rate or rating "Description" with a description of the course or program of study that the student will pursue will help you:

- determine how much of the recommended credit applies to the course or program of study at your institution,
- identify additional areas of possible credit,
- resolve duplication problems, when the applicant has applied for credit for more than one military learning experience,
- place the student at the appropriate point in the course sequence or program of study.

Step 5

Award credit, as appropriate.

The general rate and rating recommendations are advisory. They are intended to assist in formally recognizing the learning of Navy men and women and veterans and in placing them in postsecondary programs of study, apprenticeship programs, and jobs. The recommendations may be modified.

When an applicant has applied for credit for more than one military learning experience, you may find that you will have to reduce the total amount of credit recommended to avoid granting duplicate credit. (See questions 11, 19, and 20 in Questions and Answers.)

You may also wish to increase the recommended credit to account for the learning that the applicant may have acquired in other military or nonmilitary settings. (See questions 21 and 23-25 in Questions and Answers.)

Step 6

When assistance is required, contact the Office on Educational Credit and Credentials

OECC operates an information service to assist education officials, apprenticeship and training officials, and employers in evaluating the learning experiences of military personnel. Publication of the *Guide* is part of that service. However, there are instances when additional assistance is needed.

When requesting an exhibit for a general rate or rating, complete a copy of the "Request for Navy General Rate/Rating Exhibit" form that appears at the back of this volume. *Use the form only to request recommendations for general rates and ratings that are listed as "Pending evaluation."* (See question 18 in Questions and Answers.)

When assistance in interpretation is needed and it appears that official military records will help OECC staff members in responding to an inquiry, copies should be attached to the letter of inquiry. *Do not send original records.*

When a general rate or rating exhibit or assistance in interpretation is needed urgently, you may telephone the Office on Educational Credit and Credentials at (202) 833-4685. (Sorry, no collect calls.) Whether inquiring by letter or telephone, however, you should always obtain information concerning general rate and rating exhibits directly from the Office on Educational Credit and Credentials, not the applicant. (See question 8 in Questions and Answers.)

Inquiries concerning general rate and rating exhibits should be addressed to:

Office on Educational Credit and Credentials
American Council on Education
One Dupont Circle, N.W.
Washington, DC 20036
ATTN: NER Evaluation Program

Sample Navy Rating Exhibit

ID Number. A code number assigned by OECC to identify each exhibit.

NER-SK-001

STOREKEEPER

Title. The official Navy title of the general rate or rating during the period of the exhibit dates.

SK3
SK2
SK1
SKC
SKCS
SKCM

General Rate/Rating Designation. The official Navy system of identifying occupations and their levels; listed in ascending order according to rate. (See Question 13 in the Question and Answer section for definitions of the Navy identifiers.)

Exhibit Dates. Start and end dates by month and year. The earliest start date is 6/71, the effective date of the Navy manual regulating the general rates and ratings that have been evaluated (start dates may be later than 6/71). The term "Present" indicates that the exhibit is current as of 1/80. "Pending evaluation" means that the general rate or rating is scheduled to be evaluated.

Exhibit Dates: 6/72–Present.

Occupational Field: 16 (Logistics).

Occupational Field. Two-digit number and title designating a group of related ratings.

Career Pattern

SN: Seaman (E-3). *SK3:* Storekeeper Third Class (E-4). *SK2:* Storekeeper Second Class (E-5). *SK1:* Storekeeper First Class (E-6). *SKC:* Chief Storekeeper (E-7). *SKCS:* Senior Chief Storekeeper (E-8). *SKCM:* Master Chief Storekeeper (E-9).

Career Pattern. Path of advancement. Shows prerequisite general rate and subsequent progression in a rating; the designation is provided for each rate, followed by the title and paygrade (in parentheses).

Description

Summary: Orders, receives, inspects, stores, preserves, packages, ships, and issues materials and cargo; prepares and maintains forms, records, correspondence, reports, and files. *SK3:* Knows the basic organization and functions of supply departments; is familiar with the purpose and use of major components of automated data processing (ADP) equipment and knows common terms used in ADP; operates office machines; types (at 20 words per minute), routes, and files forms and messages; maintains files, the requisition log, and budget records; prepares supply-related documents; identifies, receives, stows, and issues materials and stock items; prepares items for shipment; prepares shipment documents; inventories stocked material and installed equipment; operates material-handling equipment. *SK2:* Able to perform the duties required for SK3; establishes and maintains files; knows types, uses, and purposes of appropriations and funds; reconciles financial listings; prepares budget reports; requisitions repair parts, supplies, forms, and publications; supervises working parties handling stores; and instructions. *SKCM:* Able . . .

Description. Summary applying to all rates and a separate description of the skills, competencies, and knowledge required for proficiency in each rate.

Recommendation. By rate. Only the recommendation for the highest rate held should be used; the recommendations should not be added.

Educational credit is expressed in semester hours and recommended in four possible categories: vocational certificate; lower-division baccalaureate/associate degree; upper-division baccalaureate; and graduate degree.

Advanced standing in an apprentice training program, when recommended, is expressed in clock hours of experience and contact hours of related instruction. For example, the apprenticeship recommendation in the exhibit NER-CM-001 for CM3 is: "In an automotive, diesel, or truck mechanics apprentice training program, 1,500 clock hours of experience and 144 contact hours of related instruction (1/77).

Recommendation, SK3

In the vocational certificate category, 2 semester hours in office machines, 1 in material handling, and 1 in general clerical procedures, for a total of 4 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in office machines and 1 in general clerical procedures (12/76).

Date of Evaluation. By month and year. Appears in parentheses following the recommendation for each rate.

Important: Read entire exhibit before awarding educational credit or advanced standing in an apprentice training program.

•
•
•

Recommendation, SKCM

In the vocational certificate category, the recommendation is the same as that for SK1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SKCS. In the upper-division baccalaureate category, 3 semester hours in supply management and 3 in management problems, and additional credit for a practicum in management and in human relations on the basis of institutional evaluation (12/76).

Questions and Answers

This section is designed to answer questions that may arise about using the Guide and awarding credit.

1

An applicant at my institution has submitted a DD Form 214 that lists abbreviated course titles which I cannot decipher. The form does not contain enough information for me to find the courses in the *Guide*. What should I do? Military records often provide insufficient information for education officials to properly identify courses. For that reason, OECC has designed the "Request for Course Recommendation" form, which can be used to supplement records. The applicant for credit should be responsible for interpreting the information on his or her records and presenting the data in readable form. You may also use course completion certificates and other training records to verify entries on the DD Forms 214 and 295. It is recommended that you automatically require students to complete the Request for Course Recommendation Form. Then, if you need help from OECC, simply authorize the form and submit it to OECC.

2

When an applicant brings information on a number of courses completed, I can usually find exhibits for only a small percentage of the courses in the *Guide*. Am I doing something wrong? The course evaluations done by the Office on Educational Credit and Credentials probably represent about 30 percent of the total number of courses offered by the armed services. The remaining 70 percent cannot be evaluated for one reason or another. In general, courses evaluated and published in the *Guide* are offered on a full-time basis (a minimum of thirty contact hours of instruction a week) for not less than two weeks' duration; or, if less than two weeks in length, the courses must include a minimum total of sixty contact hours of academic instruction. (Prior to 1973 the minimum length requirement was three weeks or 90 contact hours.) Very few correspondence courses are listed in the *Guide* because such programs were not evaluated until the mid-1970s. However, recently we have begun to evaluate selected correspondence courses. These courses will be listed in the Keyword Index under "Correspondence" for easy identification. One criterion for reviewing correspondence courses is the establishment of an ongoing proctored end-of-course examination program. Another requirement for evaluation is that a course be formal as defined by the services, i.e., offered to meet servicewide training requirements and published in the formal schools catalog for the service. This requirement generally excludes locally organized and command-level training programs, as well as courses offered on a one-time basis. You will find no courses conducted prior to 1954 listed in this guide. You must always submit a Request for Course Recommendation form to this office for assistance with courses taken from 1940 through 1954. When in doubt about the availability of any evaluation for any service course, contact the OECC Information Service by telephone or by submitting a Request for Course Recommendation form.

3

I understand many military records were destroyed in a fire at the General Services Administration several years ago. What do I do if the applicant's military records were among those destroyed? Many records were reclaimed or reconstructed and are now available. In addition, the applicant's copies of certificates may be used in lieu of records destroyed in the GSA fire.

4

May I submit a Request for Course Recommendation form that the student has filled out with information from the *Guide*? A form filled out by a student who copies information from the *Guide* cannot be used by the OECC Information Service staff for identification purposes because that information only duplicates data already published. One of the purposes of the Request for Course Recommendation form is to secure information about a course from the student, ideally through official records, but also from his or her personal knowledge or memory of the course. With this first-hand information, you may find the correct course exhibit in the *Guide*. If you cannot find it, you may send the request form to the OECC Information Service.

The OECC staff can then use this additional information to search its extensive files for matching information. When a student attempts to identify a course taken years ago by extracting *current* titles and/or course numbers from the *Guide*, he or she may in fact be identifying a *similar* course but not the one he or she may have taken. This can be misleading and it seriously handicaps the OECC research staff. Only accurate and verified information is to be submitted.

5

Who should send in the Request for Course Recommendation form? The form should be completed by the applicant and authorized by you, the institution official. Credit recommendations will be forwarded to your institution only when you authorize us to do so. While we do provide credit recommendations to applicants upon receipt of their requests, we encourage them to apply through their schools. We do not normally send a credit recommendation to a college at the request of a student applicant.

6

Why is so much information needed on the Request for Course Recommendation form? You cannot be sure that you have identified the correct exhibit in the *Guide* unless all the information on the form matches the corresponding items in the course exhibit. The course title, course number, name and location of the service school, and length of the course shown on the form should be identical to the information in the exhibit. In addition, the dates of attendance should fall within the exhibit dates. OECC credit recommendations are for *specific* courses; therefore, all items must be identical if a positive identification is to be made.

A complete and accurate form will also help the OECC Information Service research the course.

7

What do I do when the information on the Request for Course Recommendation form doesn't exactly match the information in the course exhibit? Send an authorized form to the OECC Information Service. Send the form in yourself; do not give it to the student to submit. Send *copies* of military records if you think they'll provide additional information. If OECC cannot identify the course and supply a credit recommendation, you may still grant credit to the applicant by conducting your own assessment of the applicant's learning. (See question 24 for information about assessment techniques.)

8

How long does it take to receive a response if I submit a properly completed request form? About three weeks for most requests, longer for those requiring extensive research. Every effort will be made to respond as quickly as possible. If you wish, you may call in requests, but if research is involved, OECC will ask you to send a written request. If you are calling in with a request, be sure to have all pertinent information (See Question 6) available to give to the OECC staff person.

9

How can I get additional information about the courses in the *Guide*? Sometimes the descriptive material in the exhibit is not detailed enough for me to make a decision about granting credit. What do I do then? With the exception of a few computer-taught or classified courses, OECC has on file the programs of instruction for all courses listed in the *Guide*. When necessary, OECC can provide the topic outline from the military syllabus, and in those instances where an entire program of instruction is needed, arrangements can be made to photocopy the entire syllabus.

10

What are USAFI and DANTES? Can I grant credit for the courses and tests listed on an applicant's USAFI or DANTES military test reports? USAFI was the United States Armed Forces Institute, which offered an extensive educational program to active-duty personnel. USAFI correspondence, seminar, and self-study courses, end-of-course tests, and Subject Standardized Tests (SSTs) were made available to service personnel worldwide until 1973, when USAFI was disestablished. Subsequently, the Defense Activity for Non-Traditional Education Support (DANTES) was established in 1974, and that agency continued the development and administration of Subject Standardized Tests and other educational services. OECC continues to recommend credit for USAFI offerings and DANTES SSTs.

In verifying completion of USAFI or DANTES courses or tests, the military test report should not be considered official. That report is given to all service personnel who have taken a course or test. To obtain official USAFI or DANTES transcripts, refer to the addresses provided in Appendix A under "Other Recommendations."

11

What is the significance of the date which appears after each credit recommendation? That date is called the "evaluation date" and represents the month and year the credit recommendation was established. Each time a course or general rate or rating is evaluated, a date is provided so that you know when the course or general rate or rating was last considered in terms of a credit equivalency. The date tells you how recently a recommendation was established so that you can judge the currency of the credit recommended. This information is particularly useful in subject areas where "state of the art" is important in determining the applicability of credit. You can also use the evaluation date when your institution has established a "statute of limitations" for acceptance of transfer credit. The date is provided purely for your information; do not confuse the date with exhibit dates or effective dates.

12

An applicant completed a course in 1973, but the *Guide* exhibit dates are 5/74 to present. Should I grant credit based on the *Guide?* The exhibit dates shown in the *Guide* indicate the time period for which OECC has information on the course. The course may have been offered for several years prior to the exhibit "start" date, but since the service branch did not submit information on the course during that time period, OECC is not able to backdate the exhibit to cover it. If you can be reasonably sure, from other information provided by the applicant (length, course content description), that his or her course was the same or similar to the course listed in the *Guide*, then you may want to grant credit based on the *Guide* recommendation. If the applicant's course was a number of weeks longer or shorter than the one covered in the *Guide* exhibit, you may be able to grant credit based on a comparison of the applicant's information with the descriptive information in the *Guide*. The Office on Educational Credit and Credentials encourages you to conduct your own assessment of courses for which no credit recommendation is available. (See question 24 for information about assessment techniques; for information on Navy rating exhibit dates, see questions 17 and 18.) OECC staff can often provide you with military formal school catalog descriptions of a course outside the time period in the exhibit. This should help you determine whether you might apply the credit listed in the guide exhibit based on your own comparison.

13

How can I distinguish among the terms paygrade, general rate, rating, and rate? A paygrade is a position from 1 to 9 on the Navy's pay scale for enlisted personnel; in referring to a paygrade, the letter E (enlisted) precedes the number (E-1, E-2, E-3, E-4, E-5, E-6, E-7, E-8, and E-9). A *general rate* is an apprenticeship that indicates eligibility for entrance into various ratings. A *rating* is an occupation composed of a number of related jobs. A *rate* is an identifying term or title associated with a given *paygrade*, for example, the rate petty officer third class for paygrade E-4. A rate may also be associated with a specific rating; for example, a petty officer third class (paygrade E-4) whose rating is Air Controlman will usually refer to his or her rate as "Air Controlman Third Class." Navy men and women usually refer to themselves by their rate. Refer to Appendix A for a description of the Navy Enlisted Rating structure.

14

Do all ratings provide paths of advancement and career development for paygrades E-4 through E-9? Although most ratings begin at paygrade E-4 and terminate at paygrade E-9, there are some exceptions. For example, the Legalman rating consists of paygrades E-5 through E-9. In this case, a person progresses to paygrade E-5 from paygrade E-4 of the Yeoman rating. At the other end of the spectrum, some ratings are structured so that a person holding a rating which consists only of paygrade E-9 (e.g., Master Chief Constructionman), may have progressed from any one of several related ratings that terminate at paygrade E-8. This allows personnel who are assigned to ratings that are low in density and in which occupational content is similar to progress to higher levels and scopes of authority and responsibility. Paths of progression are provided in each exhibit in the "Career Pattern" section.

15

How do I determine whether an applicant is eligible to receive the credit you recommend in your general rate and rating exhibits? Item 8 of NAVPERS 1070/604, "Navy Occupation/Training and Awards History," provides the list of general rate(s) and rating(s) to which a person has advanced. Advancements are made and recorded in Item 8 only after *all* criteria for advancement, including passing performance and written tests, have been met and openings occur. Therefore, if the general rate or rating is listed in Item 8, the person has demonstrated his or her proficiency in it and is eligible to receive the credit that is recommended. DD Forms 214 and 295 also contain some information regarding general rates and ratings; however, they usually do not contain a person's entire occupational history.

16

If the letters PNA (passed-but-not-advanced) appear in item 8 of NAVPERS 1070/604, Navy Occupation/ Training and Awards History, or on DD Form 295,

"Application for the Evaluation of Educational Experiences During Military Service," should I grant the credit recommended for the rating the person holds or for the rating the person would have held if he or she had been advanced? The latter. Passed-but-not-advanced means that the person has passed the required written and performance examinations and is qualified for advancement. However, time in service, time in rate, and awards received also contribute to a person's total advancement score, which is the basis used in determining who is selected to fill existing openings in a given rate. In other words, the PNA person has demonstrated his or her occupational proficiency but was not advanced because he or she had an insufficient number of points from sources other than examinations to compete successfully for the openings in a given rate.

17

If the date of a person's advancement to a given general rate or rating is earlier than the start date of the exhibit, can I still use the recommendation? Probably not. You need to do some additional investigating to help you decide whether to accept or modify the recommendation. The start date established by OECC is based on how far back we can verify that the general rate or rating was the same as it was when our evaluation team evaluated it. The verification is based on official documentation given to us by the Navy. The documentation supports a start date of June 1971 for most general rates and ratings. However, several are later than June 1971. We do not have the means to confirm that a general rate or rating was the same before June 1971, but you might. There are two steps you will need to follow in making your decision:

1. Ask the person to provide a copy of the Navy Regulation pertaining to occupational qualifications or standards that were in effect when he or she held the general rate or rating. Use the qualifications or standards to identify the learning outcomes represented by the general rate or rating.
2. Determine how much credit may be granted to the person. (Remember that advancement connotes occupational proficiency.) A careful comparison of the description in the general rate or rating exhibit and the qualifications or standards obtained in step one may reveal whether the general rate or rating was substantively different. If it was not, the credit recommendation in the exhibit may be used. If specific differences are identified, then the recommended credits may need to be modified accordingly. One approach to modifying the credit recommendation is to have faculty members in appropriate subject areas assess the person's learning. In assessing the learning for educational credit, they should identify the discrete learning outcomes achieved by the person and relate them to the educational objectives of their courses and programs of study. Equivalent credit should be granted when the person has demonstrated the achievement of the same learning outcomes for which the faculty members grant credit to their students. (See question 24 for information about assessment techniques.)

18

When a general rate or rating exhibit includes the statement, "Pending evaluation," how will I know when the ACE recommendations will be available? The "abbreviated" exhibit format was developed to inform you of the evaluation status of general rates and ratings. Such exhibits include only the OECC ID number, the title of the general rate or rating, the general rate or rating designation(s), and the exhibit dates with the statement, "Pending evaluation." When you encounter this statement, two things are certain: (1) the general rate or rating is one that was in use as of the publication cut-off date of January 1980 and (2) that ACE plans to evaluate the general rate or rating. As recommendations for general rates and ratings become available, they will be announced in the *OECC Newsletter.* Inquiries about the evaluation status of a general rate or rating should be directed to the OECC Information Service (see p. xi).

19

Why is the number of credits recommended for the rating I just looked up greater than the number recommended for the course that leads to it? Discrepancies between the credit recommendations for related ratings and courses are not uncommon. Indeed, it is rare for the subject matter covered in a course to perfectly coincide with the learning represented by occupational proficiency. In most cases, there is quite a difference in scope: difference in the subject matter mastered by the learner and, when the subject matter is the same, a difference in the depth, breadth, and extent of the learning.

Usually the scope of a course is narrower than that of the job. Most Navy courses are designed to prepare Navy men and women to function on-the-job or to take on additional tasks. As such, the courses normally provide entry-level occupational skills and competencies. Occupational proficiency is predicated on the additional factor(s) of work experience and/or extensive self-instruction.

In awarding credit for related ratings and courses, you need to be aware of the likelihood of overlapping credit recommendations. The term "overlapping" means that at least part of the learning represented by demonstrated occupational proficiency in the rating is the same as that for the course; therefore, some of the credits recommended may duplicate each other. A suggested procedure for resolving duplication is given in the answer to question 20.

20

I have looked up the exhibits for several courses and ratings for one person. Several of the credit recommendations within a given credit category are in the same subject areas. How can I avoid granting too much or duplicate credit to this person? In this instance, you have an example of overlapping credit recommendations. Awarding a simple total of the recommended credits could result in the award of more credit than the learning merits.

Credit recommendations may overlap between (1) related courses, (2) related ratings, and (3) related courses and ratings.

Course recommendations will overlap when the individual has participated in several military courses in the same subject area and at the same level. Recommendations (both credit and apprenticeship) for ratings will overlap when the individual has advanced to two or more ratings that require related qualifications and the performance of related or similar duties. Course recommendations and rating recommendations will overlap when the individual has acquired his or her occupational proficiency, or a significant portion of it, through completion of one or more formal service school courses.

In all the instances cited, when the learning outcomes and courses or programs of study in which recommendations are made are the same or very similar, there is overlap, and you should modify the credit recommendations to avoid granting duplicate credit. To reconcile the overlap in the recommendations, compare the descriptions and recommendations and interview the applicant to obtain additional information. To determine how much credit may be awarded without duplication to an individual, use the following steps:

1. Identify the appropriate ratings held and/or formal courses completed by the individual from the official military records the individual provides.
2. Locate all pertinent and available rating exhibits and/or course exhibits in the *Guide.*
3. Locate the correct rate within each rating exhibit; for courses, locate the correct version within each course exhibit.
4. Read and compare all the descriptions.
5. Identify the appropriate recommendations in each exhibit, on the basis of the person's program of study.
6. Read and compare all the pertinent recommendations. It may be helpful to list the amount of credit and the subject areas or programs of study of each recommendation.
7. If necessary, obtain additional information from the individual through interview or further assessment.
8. When the nature and extent of the individual's learning has been identified, refer to all pertinent recommendations and make decisions on how much credit may be awarded without duplication. Credit should be awarded as appropriate to the educational goals of the individual and the policies of the institution.

If you cannot determine whether duplication exists, write the Office on Educational Credit and Credentials Information Service.

21

When credit is recommended in more than one category, what should I do? Credit has frequently been recommended in more than one category. One reason for multiple-category recommendations is that the scope of a given rating or course reflects learning in several subject fields at different levels of complexity. The learning outcomes acquired in a course or rating in one subject field may apply to courses normally included in lower-division baccalaureate/associate degree programs while those in another subject field may apply to courses normally included in upper-division baccalaureate programs. Another reason for multiple-category recommendations is that faculty members who serve as evaluators decide that learning in a given subject field can be applied to courses and programs of study encompassed by more than one of the categories; that is, learning in electronics, for example, may apply to the vocational certificate category and to the upper-division baccalaureate category. A thorough reading of the exhibit will help you to determine which category or categories is the best for you to apply. You will need to read the exhibit and compare learning outcomes achieved and course objectives and content with those of your own institution.

In the first instance—learning in several subject fields—the recommended credits may be added as long as all the subjects are applicable to the student's programs of study at your institution.

Example A:

> In the lower-division baccalaureate/associate degree category, 1 semester hour in communication skills and 1 in principles of management. In the upper-division baccalaureate category, 3 semester hours in personnel management (6/75).

In Example A, up to 5 semester hours may be awarded if they apply to the student's program: 1 in communication skills, 1 in principles of management, and 3 in personnel management.

In the second instance—learning in a given subject field that is applied to two or more categories—the recommended credits probably should not be added. You will have to determine how they apply to the student's program of study at your institution.

Example B:

> In the vocational certificate category, 15 semester hours in electricity or electronics. In the lower-division baccalaureate/associate degree category, 10 semester hours in electricity or electronics. In the upper-division baccalaureate category, 5 semester hours in electricity or electronics.

In Example B, to determine how many credits to award, compare the information in the exhibit description with the desired outcomes of electricity or electronics or related courses and programs of study at your institution. Award credit based on comparison of these outcomes.

As a general rule, you should read the exhibit descriptions and then award credit as it best applies to the student's program of study, as determined through academic counseling.

Credit may be applied to a student's program in various ways: (1) applied to the major to replace a required course; (2) applied as an optional course within the major; (3) applied as a general elective; (4) applied to meet basic degree requirements; or (5) applied to waive a prerequisite. Credit granted by a postsecondary institution will depend on institutional policies and degree requirements.

22

I have a course recommendation in which credit in more than one category—but in the same subject area—is recommended. It looks like a combination of the previous examples. What do I do in that case? Credit categories could be combined, if, for example, the recommendation is:

> In the lower-division baccalaureate/associate degree category, 3 semester hours in typing and 3 in office management. In the upper-division baccalaureate category, 3 semester hours in office management and 2 for field experience in management (11/75).

The 3 semester hours in office management recommended in the lower-division baccalaureate/associate degree category and the 3 in office management recommended in the upper-division baccalaureate category should not be combined for a total of 6. Eight semester hours might be granted if they apply to the student's program: 3 in typing, 3 in office management, and 2 for field experience in management. The evaluators have described the course content, and using that description from the course exhibit, you must determine the appropriate application of the credit recommendation.

23

Do I have to grant credit *exactly* as it appears in the recommendation? No. You are under no obligation to grant credit, although most colleges do recognize learning that occurs in a military setting. The use of ACE recommendations is the prerogative of education officials and employers. The recommendations are provided to assist you in assessing the applicability of a person's military learning experiences to his or her educational program or occupation. *You may modify the recommendations in accordance with your institution's policies and practices.*

You should keep in mind, then, that the recommendations are advisory and are designed as a tool for use in giving due recognition to an individual for his or her learning experiences in the armed services. You should also keep in mind that the learning of some service personnel may exceed the skills, competencies, and knowledge evaluated for a specific course or rating. In these cases, you may wish to conduct further assessment. (See question 24 for information about assessment techniques.)

24

May I conduct my own assessment of an applicant's learning? Yes. In a sense, you are *always* conducting your own assessment, even when you use the recommendations in this book. The *Guide* is one of many tools you can use to assess what an applicant has learned and how that learning can be applied to a specific program of study at your institution. When you cannot find a recommendation in the *Guide* or obtain one from OECC Information Service, we encourage you to use other means to assess what the person has learned.

There are a wide variety of assessment techniques that you can use, e.g., written examinations, oral examinations, faculty committee assessment, evaluation of materials supplied by the applicant, personal interviews, performance tests, and standardized examinations such as CLEP. A combination of several techniques will usually result in a reliable assessment of the person's learning.

You may learn more about assessment techniques through the publications of the Council for the Advancement of Experiential Learning (CAEL), formerly the Cooperative Assessment of Experiential Learning. Two CAEL reports give particularly helpful overviews of the topic: *A Compendium of Assessment Techniques,* by Joan Knapp and Amiel T. Sharon (CAEL-11; $4.50), and *Principles of Good Practices in Assessing Experiential Learning,* by Warren W. Willingham (CAEL-27; $4.00 for a single copy, $3.00 each for ten or more). The publications may be purchased from CAEL, American City Building, Suite 212, Columbia, Maryland 21044.

You should also watch for new additions to the *ACE Guide Series,* which now comprises the *Guide* and a companion volume, *The National Guide to Educational Credit for Training Programs,* which lists recommendations for courses offered by business and industry, government agencies, professional and voluntary associations, and labor unions. The 1980 edition of *The National Guide* may be purchased from the ACE Publications Department ($22.00 a copy, prepaid). The office plans to add a guide to credit-by-examination programs to the series. Availability of the new guide will be announced in the *OECC Newsletter.*

25

I am an employer. How will the *Guide* be useful to me? You may find the exhibits helpful in identifying the skills and knowledge of veterans and placing them in jobs. The recommendations and descriptions enable you to compare a veteran's training and experience with the qualifications and requirements for jobs. The recommendations relate learning to postsecondary courses and curricula and, in some cases, to apprentice training programs.

26

I found the correct exhibit in my 1980 *Guide* but under Credit Recommendation it says "Pending Evaluation." My student can't wait for the 1982 *Guide* to find out what credit she might receive. What should I do in such a case? Staff members of the Office on Educational Credit and Credentials regularly schedule site evaluations. We publish the titles of courses, Army MOS's, and Navy ratings in the OECC *Newsletter* so that you may be aware of the availability of recommendations. When a course or occupation is listed as "Pending Evaluation," you may call the office to find out if a credit recommendation is available, or you may simply send in your authorized "Request for Course Recommendation" or "Request for Army Enlisted and Warrant Officer MOS Exhibits" form. The *Guide* system is constantly growing as courses and occupations are added to the data base.

27

One of my students completed a formal military course but does not have a DD Form 295 or DD Form 214 because he was not on active-duty service. Can I grant credit for the course and how can I verify that the course was actually completed? We recommend that school officials use the DD 295 or DD 214 whenever available in verifying successful completion of a service course. This suggestion is not intended to exclude those individuals who do not have access to the forms because they were 1) on reserve status, 2) in the National Guard, or 3) civilians attending military courses. In such cases, we suggest that alternative forms of certification, such as course completion certificates or other acceptable records of training, be used to verify eligibility for credit. The following summary of records sources might be used in seeking alternative records:

National Personnel Records Center (Military Personnel Records), 9700 Page Boulevard, St. Louis, MO 63132—the primary source for in-service training records for discharged or retired personnel.

USAF, Military Personnel Center, Military Personnel Records Division, Randolph AFB, TX 78148—for active AF members including National Guard on active duty in the Air Force and general officers retired with pay.

Air Reserve Personnel Center, 3800 York Street, Denver, CO 80205—for reserve personnel, retired reservists in non-pay status, and members of the National Guard released from active duty and transferred to reserve.

Commandant, U.S. Coast Guard, Washington, DC 20590—for Coast Guard active, reserve, and officers separated before 1-1-29.

Commandant of the Marine Corps, Headquarters, U.S. Marine Corps, Washington, DC 20380—for Marine Corps active members, reserve officers, and Class II enlisted reserve.

Marine Corps Reserve Forces Class III, 1500 E. Bannister Road, Kansas City, MO 64131—for Marine Corps Class III reservists (inactive).

National Archives and Records Service, National Archives Building, Washington, DC 20408—for Army officers separated before 7-1-17 and enlisted separated before 11-1-12.

Commanding Officer, U.S. Army Administration Center, TAGO, 9700 Page Boulevard, St. Louis, MO 63132—for Army Reserve, current National Guard members, records of active duty in U.S. Army, and living retired members other than general officers.

The Adjutant General, ATTN: AGPF, Department of the Army, Washington, DC 20310—for active Army officers including National Guard on active duty in the U.S. Army, and retired general officers.

Commanding Officer, U.S. Army Enlisted Personnel Support Center, Ft. Benjamin Harrison, IN 46249—for active enlisted personnel, including National Guard, on active duty in the U.S. Army.

Chief of Naval Personnel, Department of the Navy, Washington, DC 20370—for Navy active members, reserve officers, and enlisted reserve in drill status.

National Guard Bureau, Washington, DC 20310—for current National Guard officers not on active duty in the Army or Air Force.

The Adjutant General of the Appropriate State, District of Columbia, or Puerto Rico—for current National Guard enlisted personnel not on active duty in the Army or Air Force.

28

As registrar of a four-year college, I use only the upper-division baccalaureate category in granting credit for military courses listed in your *Guide*. That is the correct approach, isn't it? Not necessarily. Depending on the recommendation, the programs of study available at the institution, and the objectives of the student, four-year colleges and universities can use any or *all* of the four categories used in the *Guide,* namely the vocational certificate catergory, the lower-division baccalaureate/associate degree category, the upper-division baccalaureate category, and the graduate degree category. Please read questions 19-25 and "Categories of Credit," p. A-6, of the 1980 edition of the *Guide to the Evaluation of Educational Experiences in the Armed Services.*

29

We have received from a military service school a transcript listing semester credits and carrying the statement that the school is accredited by one of the six regional accrediting associations. How do we handle this? At this time we know of no military schools that are accredited above the certificate level other than the following: Community College of the Air Force, which is accredited at the two-year community college level, Army Command and Staff College at Fort Leavenworth, Kansas, which is accredited to grant an M.A. degree, Armed Forces Institute of Technology at Wright Patterson Air Force Base, which is accredited through the doctoral level and the service academies.

We recommend that you handle the certificate level credit listings in accordance with your institutional policy regarding certificate level credit.

30

I understand that basic training was recently evaluated. What happened to OECC's former statement on basic and recruit training, and where do I find the new credit recommendations? We did conduct on-site evaluations of the basic training offered for both men and women by the Army, Coast Guard, Marine Corps, and the Navy. We believed that the differences in the missions of the services had not been sufficiently addressed by our earlier policies and believed that the differences in training for males and females also were not reflected. Consequently, you will find our credit recommendations in the Course Exhibits section of each volume of the *Guide;* look under "basic" or "recruit" in each Keyword Index to find the course exhibit number.

Additional questions and answers about using the Guide *and the recommendations appear in the* OECC Newsletter. *If you are not already receiving the newsletter, write to the Editor,* OECC Newsletter, *Office on Educational Credit and Credentials, American Council on Education, One Dupont Circle, Washington, DC 20036.*

Transfer and Award of Credit

This statement was developed by the three national associations whose member institutions are directly involved in the transfer and award of academic credit—the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education, and the Council on Postsecondary Accreditation. The need for such a statement came from an awareness of the growing complexity of transfer policies and practices, which have been brought about, in part, by the changing contours of postsecondary education. With increasing frequency, students are pursuing their education in a variety of institutional and extra-institutional settings. Social equity and the intelligent use of resources requires that validated learning be recognized wherever it takes place.

The statement is intended to serve as a guide to institutions in the development or review of policies dealing with transfer and award of credit. It is under periodic review by the three associations and reactions would, of course, be welcome. Comments may be directed to Henry Spille, Director of the Office on Educational Credit and Credentials, ACE.

J. W. Peltason, President

This statement is directed to institutions of postsecondary education and others concerned with the transfer of academic credit among institutions and award of academic credit for extra-institutional learning. Basic to this statement is the principle that each institution is responsible for determining its own policies and practices with regard to the transfer and award of credit. Institutions are encouraged to review their policies and practices periodically to assure that they accomplish the institution's objectives and that they function in a manner that is fair and equitable to students. Any statements, this one or others referred to, should be used as guides, not as substitutes, for institutional policies and practices.

Transfer of credit is a concept that now involves transfer between dissimilar institutions and curricula and recognition of extra-institutional learning, as well as transfer between institutions and curricula of similar characteristics. As their personal circumstances and educational objectives change, students seek to have their learning, wherever and however attained, recognized by institutions where they enroll for further study. It is important for reasons of social equity and educational effectiveness, as well as the wise use of resources, for all institutions to develop reasonable and definitive policies and procedures for acceptance of transfer credit. Such policies and procedures should provide maximum consideration for the individual student who has changed institutions or objectives. It is the receiving institution's responsibility to provide reasonable and definitive policies and procedures for determining a student's knowledge in required subject areas. All institutions have a responsibility to furnish transcripts and other documents necessary for a receiving institution to judge the quality and quantity of the work. Institutions also have a responsibility to advise the students that the work **reflected** on the transcript **may or may not** be accepted by a receiving institution.

INTERINSTITUTIONAL TRANSFER OF CREDIT

Transfer of credit from one institution to another involves at least three considerations:

(1) the educational quality of the institution from which the student transfers;

(2) the comparability of the nature, content, and level of credit earned to that offered by the receiving institution; and

(3) the appropriateness and applicability of the credit earned to the programs offered by the receiving institution, in light of the student's educational goals.

Accredited Institutions

Accreditation speaks primarily to the first of these considerations, serving as the basic indicator that an institution meets certain minimum standards. Users of accreditation are urged to give careful attention to the accreditation conferred by accrediting bodies recognized by the Council on Postsecondary Accreditation (COPA). COPA has a formal process of recognition which requires that any accrediting body so recognized must meet the same standards. Under these standards, COPA has recognized a number of accrediting bodies, including:

(1) regional accrediting commissions (which historically accredited the more traditional colleges and universities but which now accredit proprietary, vocational-technical, and single-purpose institutions as well);

(2) national accrediting bodies that accredit various kinds of specialized institutions; and

(3) certain professional organizations that accredit free-standing professional schools, in addition to programs within multi-purpose institutions. (COPA annually publishes a list of recognized accrediting bodies, as well as a directory of institutions accredited by these organizations.)

Although accrediting agencies vary in the ways they are organized and in their statements of scope and mission, all accrediting bodies that meet COPA's standards for recognition function to assure that the institutions or programs they accredit have met generally accepted minimum standards for accreditation.

Accreditation affords reason for confidence in an institution's or a program's purposes, in the appropriateness of its resources and plans for carrying out these purposes, and in its effectiveness in accomplishing its goals, insofar as these things can be judged. Accreditation speaks to the probability, but does not guarantee, that students have met acceptable standards of educational accomplishment.

Comparability and Applicability

Comparability of the nature, content, and level of transfer credit and the appropriateness and applicability of the credit earned to programs offered by the receiving institution are as important in the evaluation process as the accreditation status of the institution at which the transfer credit was awarded. Since accreditation does not address these questions, this information must be obtained from catalogues and other materials and from direct contact between knowlegeable and experienced faculty and staff at both the receiving and sending institutions. When such considerations as comparability and appropriateness of credit are satisfied, however, the receiving institution should have reasonable confidence that students from accredited institutions are qualified to undertake the receiving institution's educational program.

Admissions and Degree Purposes

At some institutions there may be differences between the acceptance of credit for admission purposes and the applicability of credit for degree purposes. A receiving institution may accept previous work, place a credit value on it, and enter it on the transcript. However, that previous work, because of its nature and not its inherent quality, may be determined to have no applicability to a specific degree to be pursued by the student.

Institutions have a responsibility to make this distinction, and its implications, clear to students before they decide to enroll. This should be a matter of full disclosure, with the best interests of the student in mind. Institutions also should make every reasonable effort to reduce the gap between credits accepted and credits applied toward an educational credential.

Unaccredited Institutions

Institutions of postsecondary education that are not accredited by COPA-recognized accrediting bodies may lack that status for reasons unrelated to questions of quality. Such institutions, however, cannot provide a reliable, third-party assurance that they meet or exceed minimum standards. That being the case, students transferring from such institutions may encounter special problems in gaining acceptance and transferring credits to accredited institutions. Institutions admitting students from unaccredited institutions should take special steps to validate credits previously earned.

Foreign Institutions

In most cases, foreign institutions are chartered and authorized by their national governments, usually through a ministry of education. Although this provides for a standardization within a country, it does not produce useful information about comparability from one country to another. No other nation has a system comparable to voluntary accreditation. The Division of Higher Education of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) is engaged in a project to develop international compacts for the acceptance of educational credentials. At the operational level, four organizations—the Council on International Educational Exchange (CIEE), the National Council on the Evaluation of Foreign Student Credentials (CEC), the National Association for Foreign Student Admissions (NAFA), and the National Liaison Committee on Foreign Student Admissions (NLC)—often can assist institutions by distributing general guidelines on admission and placement of foreign students. Equivalency or placement recommendations are to be evaluated in terms of the programs and policies of the individual receiving institution.

VALIDATION OF EXTRA-INSTITUTIONAL AND EXPERIENTIAL LEARNING FOR TRANSFER PURPOSES

Transfer-of-credit policies should encompass educational accomplishment attained in extra-institutional settings as well as at accredited postsecondary institutions. In deciding on the award of credit for extra-institutional learning, institutions will find the services of the American Council on Education's Office of Educational Credit helpful. One of the Office's functions is to operate and foster programs to determine credit equivalencies for various modes of extra-institutional learning. The Office maintains evaluation programs for formally structured courses offered by the military, and civilian noncollegiate sponsors such as business, corporations, government agencies, and labor unions. Evaluation services are also available for examination programs, for occupations with validated job proficiency evaluation systems, and for correspondence courses offered by schools accredited by the National Home Study Council. The results are published in a Guide series. Another resource is the General Education Development (GED) Testing Program, which provides a means for assessing high school equivalency.

For learning that has not been validated through the ACE formal credit recommendations process or through credit-by-examination programs, institutions are urged to explore the Council for Advancement of Experiential Learning (CAEL) procedures and processes. Pertinent CAEL publications designed for this purpose are also listed.

USES OF THIS STATEMENT

This statement has been endorsed by the three national associations most concerned with practices in the area of transfer and award of credit—the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education/Commission on Educational Credit, and the Council on Postsecondary Accreditation.

Institutions are encouraged to use this statement as a basis for discussions in developing or reviewing institutional policies with regard to transfer. If the statement reflects an institution's policies, that institution might want to use this publication to inform faculty, staff, and students.

It is recommended that accrediting bodies reflect the essential precepts of this statement in their criteria.

Approved by the COPA Board
October 10, 1978

Approved by the American Council on Education/
Commission on Educational Credit
December 5, 1978

Approved by the Executive Committee, American Association of Collegiate Registrars and Admissions Officers
November 21, 1978

Course Exhibits

CG

CG-0419-0001

MERCHANT MARINE SAFETY
INDOCTRINATION SCHOOL

Course Number: None.

Location: Coast Guard Academy, New London, CT; Reserve Training Center, Yorktown, VA.

Length: 12 weeks (340 hours).

Exhibit Dates: 2/61–12/68.

Objectives: To prepare officers for assignment to duty in a marine inspection office.

Instruction: Introduction to marine inspection; merchant marine investigation and revocation proceedings; licensing and certifying of merchant marine personnel; naval architecture and ship construction; regulations for passenger, cargo, tank, and uninspected vessels; dangerous cargo, load line, and marine and electrical engineering regulations; equipment specifications; welding; hull and boiler vessel inspection; dry-dock and vessel repair.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in transportation operations (12/68).

CG-0701-0001

DENTAL TECHNICIAN A SCHOOL

Course Number: None.

Location: Coast Guard Training Center, Cape May, NJ.

Length: *Version 1:* 12 weeks (387–433 hours). *Version 2:* 12 weeks (423 hours).

Exhibit Dates: *Version 1:* 1/74–Present. *Version 2:* 2/73–12/73.

Objectives: To provide basic techniques and skills required for dental assisting.

Instruction: *All Versions:* Lectures and practical experience in chairside assisting, basic radiology techniques, prophylaxis, operating room assisting, dental anatomy, first aid, preventive dentistry, and dental office *Version 1:* Students learn to prepare patients for dental treatment, and can identify, sharpen, care for and set-up instruments for all phases of dentistry. They can sterilize instruments and materials. Students learn to instruct in proper daily oral health, scale and polish teeth, apply cariostatic agents, render emergency casualty treatment; expose, process and mount periapical, bitewing, and occlusal films employing proper procedures and precautions for use of radiographic equipment, explain the structure and function of the human body, particularly the head, neck and oral structures as a requisite to the treating of sick and managing emergency injury situations, and perform routine administrative duties.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic dental assisting, 4 in dental clinical experience ((8/79). *Version 2:* Credit is not recommended because of the limited specialized nature of the course (2/74).

CG-0703-0001

BASIC HOSPITAL CORPSMAN, CLASS A
(HM A School)

Course Number: G1009.

Location: Coast Guard Academy, New London, CT.

Length: 16 weeks (640 hours).

Exhibit Dates: 4/74–Present.

Objectives: To train enlisted personnel in the basic principles and techniques necessary to provide direct patient care to the sick and injured with the main emphasis on independent duty.

Instruction: Instruction includes general anatomy and physiology, medical and surgical conditions, preventive medicine, principles and techniques of patient care, medical administration, medical mathematics and pharmacology, laboratory techniques, instructional and leadership techniques, first aid, military and administrative regulations and supervised clinical experiences.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 2 in pharmacology, 2 in health and hygiene or preventive medicine, 2 in emergency medical techniques, 3 in nursing techniques, and 4 in clinical practicum (11/77).

CG-0709-0001

HOSPITAL CORPSMAN (HM)

Course Number: None.

Location: Hospital Corpsman School, Groton, CT.

Length: 24 weeks (800 hours).

Exhibit Dates: 10/60–12/67.

Objectives: To train personnel in the fundamental principles of health and nursing.

Instruction: Nursing; anatomy and physiology; first aid; preventive medicine; materia medica and therapeutics; medical administration; medicine; pharmacy; chemistry; laboratory; dental; x-ray; clinical experience.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in hygiene, sanitation and first aid and 2 in anatomy and physiology (12/68).

CG-0709-0002

EMERGENCY MEDICAL TECHNICIAN

Course Number: None.

Location: Training Center, Petaluma, CA.

Length: 2–3 weeks (104 hours).

Exhibit Dates: 2/79–Present.

Objectives: To train personnel, especially those engaged in search and rescue activities, to provide basic life support and emergency medical care.

Instruction: Course provides lectures and laboratories covering legal aspects of emergency care; anatomy and physiology of the respiratory and cardiopulmonary systems; use of oropharyngeal airways, suction equipment, oxygen delivery systems, and assisted ventilation devices; the signs and symptoms of patients suffering from various injuries to the face, chest, abdomen, genitalia, head and spine, and of patients suffering from cardiac problems, dyspnea, acute abdominal problems, strokes, poisoning, stings, bites, diabetic emergencies and seizure disorders, heat cramps, heat exhaustion, alcohol and drug abuse, emotional disturbances, rape, and burns; student will learn proper treatment and response to the above. Total proficiency will be required to pass examinations in C.P.R., dressing and bandaging techniques, splinting techniques, and measuring vital signs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in first aid or emergency technology (8/79).

CG-0802-0001

BOATING SAFETY BY CORRESPONDENCE

Course Number: 417-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 11/78–Present.

Objectives: To provide training in the area of boating safety activities (patrols, law enforcement, inspection, public education) to persons whose duties require a knowledge of the area. Student will read and study textual materials, answer lesson questions both in course book and text and pass comprehensive proctored end-of-course examination.

Instruction: Topics covered include jurisdiction, laws, numbering, registration, documentation and licensing, legal requirements and rules of the road, negligent operation, correction of hazardous conditions, motor boat examination techniques, C.G. 4100 and warnings, arrest, state boating safety program and USCG auxiliary, boating accidents, marine events and regattas, and water pollution.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in elements of marine law and safety regulations (5/79).

CG-0802-0002

1. MARINE SAFETY BASIC
INDOCTRINATION
2. MERCHANT MARINE SAFETY

Course Number: None.

Location: Reserve Training School, Yorktown, VA.

Length: 11–12 weeks (243–418 hours).

Exhibit Dates: *Version 1:* 3/78–Present. *Version 2:* 11/65–2/78.

Objectives: To train merchant marine personnel in the laws, regulations and policies governing marine safety.

Instruction: *All Versions:* Lectures and practical exercises in ship construction, engineering materials, welding, non-destructive testing, hull repair, boilers and pressure vehicles, piping systems, lifesaving equipment, deck and electrical inspection, fire protection, engineering inspection, licensing, casualty investigation, and safety. *Version 1:* The course is divided into two phases. Phase I is 8 weeks in length and covers commercial vessel safety functions as cited above. Phase II is four weeks in length and covers port safety law enforcement and environmental protection functions.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in marine safety for phase I, 2 semester hours in marine environmental safety, and 1 in port terminal management for phase II, for a total of 6 semester hours in marine safety and 1 in port terminal management (12/79). *Version 2:* In the vocational certificate category, 4 semester hours in marine safety (6/75).

CG-0802-0003

Search and Rescue Class C
(Search and Rescue)

Course Number: None.

Location: Search and Rescue School, Governors Island, NY.

Length: 4 weeks (124–134 hours).

Exhibit Dates: *Version 1:* 11/77–Present. *Version 2:* 9/66–10/77.

Objectives: To train personnel in search and rescue procedures.

Instruction: *Version 1:* Covers organization, documentation, public information and legal aspects of the process. *Version 2:* Lectures and practical exercises in search and rescue facilities, search planning, conduct of the search, rescue equipment and techniques, and precautionary and special missions.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours of elective credit in search and rescue (8/78). *Version 2:* Credit is not recommended because of the limited specialized nature of the course (6/75).

CG-0802-0004

National Boating Safety

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 9/72–Present.

Objectives: To train personnel in boating safety.

Instruction: Lectures and practical exercises to include boating safety; federal laws; definitions and terminology; equipment for various crafts; boating communication and lighting; first aid; boarding procedures and techniques; and rules of the road.

Credit Recommendation: In the vocational certificate category, 4 semester hours in federal and state boating safety inspection (7/74).

CG-0802-0005

Rescue Coordination Center for Reservists
(RCC Reservists)

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (75 hours).

Exhibit Dates: 3/78–Present.

Objectives: To provide training in the duties of a search and rescue mission coordinator and rescue coordination center controller.

Instruction: Course includes lectures and laboratory exercises in search and rescue planning and facilities.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/78).

CG-0802-0006

Hazardous Chemicals Training

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 6/78–Present.

Objectives: To instruct Coast Guard personnel with extensive experience in marine safety in the hazards of transporting and handling chemicals and petroleum products, inspection techniques required for hazardous cargo, the duties of on-scene coordinator and the requirements for occupational safety as pertains to chemicals and petroleum products.

Instruction: Lectures and practical exercises on hazardous chemical regulations, physical, chemical and toxicological properties of hazardous chemicals, hazardous cargo vessel and terminal arrangements, duties of on-scene coordinator, study of previous hazardous cargo accidents and inspection requirements for vessels, terminals and transfer equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in marine/industrial safety (12/79).

CG-1304-0001

1. Class A Marine Science Technician
2. Marine Science Technician

Course Number: None.

Location: *Version 1:* Reserve Training Center, Yorktown, VA. *Version 2:* Coast Guard Training Center, Governors Island, NY.

Length: *Version 1:* 13–14 weeks (475–510 hours). *Version 2:* 16–19 weeks (385–593 hours).

Exhibit Dates: *Version 1:* 6/78–Present. *Version 2:* 6/69–5/78.

Objectives: *Version 1:* To train qualified nonrated Coast Guard personnel in basic meteorological and oceanographic theory and skills necessary to operate equipment and perform basic observations and analyses.

Instruction: *Version 1:* Lectures, programmed instructions in basic physical science, practical experience making and processing meteorological surface observations, oceanographic salinity,-temperature-depth profiles, techniques of in-situ sampling of ocean water, determinations of salinity and oxygen content of water samples and techniques of bathymetric operations. *Version 2:* Lectures and practical experience in meteorology, principles of physical and chemical oceanography and the air-sea interface, and problems in marine science technology.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in marine instrumentation (12/79); in the lower-division baccalaureate/associate degree category, 6 semester hours in marine science and 3 in meteorological operations (12/79). *Version 2:* In the vocational certificate category, 4 semester hours in marine instrumentation (12/73); in the lower-division baccalaureate/associate degree category, 4 semester hours in marine sciences (12/73); in the upper-division baccalaureate category, 3 semester hours in oceanography (12/73).

CG-1304-0002

Oceanographic Technician

Course Number: None.

Location: Oceanographic School, Groton, CT.

Length: 8–9 weeks (323–359 hours).

Exhibit Dates: 4/66–12/68.

Objectives: To train enlisted personnel in the fundamentals of oceanography.

Instruction: Lectures and practical experience in the fundamentals of biological, chemical, and physical oceanography essential to the operation of instruments for gathering data at sea.

Credit Recommendation: In the vocational certificate category, 4 semester hours in oceanography (12/73); in the lower-division baccalaureate/associate degree category, 4 semester hours in oceanography (12/73); in the upper-division baccalaureate category, 3 semester hours in oceanography (12/68).

CG-1304-0003

Marine Science Technician by Correspondence

Course Number: 234-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 3/72–Present.

Objectives: To familiarize the student with marine science equipment and instrumentation needed in observing, recording, encoding and decoding, oceanographic and meteorological data.

Instruction: The course includes a review of appropriate mathematics and basic physics; the hydrosphere and atmosphere are described. The instruments used to measure relevant attributes of the hydrosphere and atmosphere are described and their reading and codes are discussed. How this data is entered into the computer and processed for certain analysis is demonstrated. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 2 in technical mathematics (5/79).

CG-1304-0004

Celestial Navigation by Correspondence

Course Number: 463-4.

Location: Coast Guard, Oklahoma City, OK; Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 2/77–Present.

Objectives: To provide training in celestial navigation.

Instruction: This nonresident course consists of ten lessons including coordinate systems, time, description of marine sextant, use of the nautical almanac and H.O. Tables 229, the celestial fix and running fix, the Rude starfinder, and how to determine gyro error at sea. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in celestial navigation (5/79).

CG-1304-0005

Oceanography by Correspondence

Course Number: 407-2.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 4/72–Present.

Objectives: To introduce students to basic oceanographic studies.

Instruction: This nonresident course requires a textbook, oceanographic manual, course book with eight lessons, and a comprehensive proctored end-of-course examination. The course includes geological, biological and physical oceanography, and provides descriptions of basic sampling procedures and processing of oceanographic data.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in basic nonlaboratory oceanography (5/79).

CG-1304-0006

ICE OBSERVER BY CORRESPONDENCE

Course Number: 476-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 4/78–Present.

Objectives: To train Coast Guard personnel to observe land and sea ice concentrations and topographical conditions and to report these observations to superiors.

Instruction: A brief nonresident course to cover responsibilities in ice breaking, to describe basic ice breaking and ice reconnaissance procedures. Course teaches stages of water freezing and thawing and provides analysis of ice charts.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/79).

CG-1304-0007

QUARTERMASTER FIRST CLASS BY CORRESPONDENCE

Course Number: 137-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 8/69–Present.

Objectives: To provide training for prospective quartermasters in communication, navigation (coastal and celestial), meteorology and related topics.

Instruction: This nonresident course covers ship conning, naval communications, rules of the road, compasses and degaussing, piloting and navigation (including celestial), and meteorology. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in coastwise navigation and piloting, 2 in applied meteorology, 2 in celestial navigation (5/79).

CG-1304-0008

METEOROLOGY BY CORRESPONDENCE

Course Number: 475-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 10/75–Present.

Objectives: To expose personnel to the various aspects of weather and to enable them to perform basic forecasting.

Instruction: This nonresident course includes weather warnings and displays, worldwide wind patterns, clouds, weather instruments, air masses, frontal systems, storms, fog, icing problems, waves, and forecasting methods. Course has proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology (5/79).

CG-1304-0009

Location: 809LK .

Length: 213LK hours).

Exhibit Dates: 11LK.

CG-1304-0009

WEATHER BRIEFER

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (90–105 hours).

Exhibit Dates: 2/78–Present.

Objectives: To train Coast Guard rated marine science technicians (MST) to provide weather briefing services for surface and aviation units.

Instruction: Lectures and programmed instruction concerning properties of air masses, structure of frontal systems, and formation of severe weather. Instruction and practical experience in methods of meteorological data acquisition, coding and decoding data, techniques of weather briefing and basic analysis of weather charts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorological observations, 3 in basic meteorology (12/79).

CG-1304-0010

MARINE ENVIRONMENT AND SYSTEMS OFFICER, CLASS C

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 4–6 weeks (146–210 hours).

Exhibit Dates: 4/77–Present.

Objectives: To prepare officers to undertake the duties and responsibilities in marine environmental protection and port safety law enforcement.

Instruction: Lectures and practical exercises in basic law enforcement, industry/Coast Guard relations, management of pollution removal, supervision of investigative procedures and reports, and public education concerning the Coast Guard's role in marine environmental protection.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in marine pollution control, 1 in port terminal management (12/79).

CG-1304-0011

MARINE ENVIRONMENT AND SYSTEMS PETTY OFFICER (CLASS C)

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 5 weeks (180–200 hours).

Exhibit Dates: 4/77–Present.

Objectives: To prepare petty officers to undertake the duties and responsibilities placed upon the Coast Guard in marine environmental protection and port safety law enforcement.

Instruction: Lectures and practical exercises in basic law enforcement, understanding of pollution removal, gathering of evidence for investigative procedures and reports, and public education concerning the Coast Guard's role in marine environmental protection.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in marine pollution control, 1 in port terminal management (12/79).

CG-1304-0012

MARINE ENVIRONMENTAL PROTECTION

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (77 hours).

Exhibit Dates: 9/78–Present.

Objectives: To prepare officers and petty officers for response and enforcement duties in marine environmental protection.

Instruction: Lectures and practical experiences in the law, regulations and standards of the Coast Guard's marine environmental program; oil and chemical spills investigations and response are included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in oil and chemical spill control (12/79).

CG-1404-0001

RADIOMAN

(Radioman Class A)

Course Number: None.

Location: *Version 1:* Radioman School, Petaluma, CA. *Version 2:* Training Center, Governors Island, NY; Training Center, Groton, CT.

Length: *Version 1:* 21 weeks (705 hours). *Version 2:* 24 weeks (903 hours).

Exhibit Dates: *Version 1:* 1/72–Present. *Version 2:* 11/58–12/71.

Objectives: To train enlisted personnel to be radiomen.

Instruction: Lectures and practical exercises in typing, voice procedures, communications technology, Morse code, electronics, teletype operations, publications, security, leadership, and first aid.

Credit Recommendation: In the vocational certificate category, 2 semester hours in typewriting (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typewriting (6/74).

CG-1404-0002

RADIOMAN SECOND CLASS BY CORRESPONDENCE

Course Number: 241-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 1/75–Present.

Objectives: To provide information on security; administration; communications systems, equipment, and procedures; and antennas.

Instruction: The technical portion of this correspondence course provides a brief coverage of the basic operating characteristics of communication receivers and transmitters used in CW, voice, and telephone modes, and of antenna and wave propogation.

Credit Recommendation: Credit is not recommended because of the military-specific content of the course (1/79).

CG-1405-0001

AVIATION ELECTRONICS TECHNICIAN (AT) COMMUNICATIONS, CLASS A

Course Number: None.

Location: Training Center, Groton, CT.

Length: 3 weeks (102 hours).

Exhibit Dates: 4/66–12/68.

Objectives: To train enlisted personnel to receive, copy, and send international Morse code.

Instruction: Lectures and practical exercises in the use of Morse code and telegraph equipment. Course includes learning Morse code alphanumeric symbols, basic message procedures and formats, and development of copy and sending skills at the rate of eight words a minute.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

CG-1406-0001

Instructor Training, Class C

Course Number: None.

Location: Coast Guard Training Center, Groton, CT.

Length: 4 weeks (83 hours).

Exhibit Dates: 3/66–12/68.

Objectives: To prepare qualified enlisted personnel of the Coast Guard for assignment to instructor duties at major training centers, ship training detachments, district training teams, and military missions and other instructional duties.

Instruction: This course includes teaching methodology, teaching aids, lesson plans, and practice teaching.

Credit Recommendation: In the vocational certificate category, 2 semester hours in instructional aids (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in instructional aids (7/74); in the upper-division baccalaureate category, 2 semester hours in instructional aids (7/74).

CG-1406-0002

Instructor Training

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (85 hours).

Exhibit Dates: 9/76–Present.

Objectives: To prepare staff in effective methods of instruction, media, and training aids.

Instruction: Course covers leadership, public speaking, methods of instruction, principles of learning, methods of testing, and other aspects in the teaching-learning process.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in teaching methods (9/78).

CG-1408-0001

Small Arms Instructor

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 3/79–Present.

Objectives: To train Coast Guard petty officers in the basic skills and advanced knowledge to act as range officers or coaches and to establish small arms ranges and small arms training programs.

Instruction: Training in safety and marksmanship on a .45 pistol, .38 revolver, M-16 rifle and 12 ga. shotgun. Students will be required to demonstrate proficiency in range safety, and approved methods of instruction in the care and use of small arms.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in small arms range management (12/79).

CG-1409-0001

Yeoman School, Class A

Course Number: None.

Location: Coast Guard Training Center, Groton, CT.

Length: 12 weeks (436 hours).

Exhibit Dates: 6/66–12/68.

Objectives: To provide yeomen with training in office and clerical procedures, including operation and maintenance of typewriters.

Instruction: Lectures and practical exercises in typing, filing, correspondence, personnel records, office procedures and etiquette.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing, 3 in office practices (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices (3/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

CG-1409-0002

Storekeeper, Class A

Course Number: None.

Location: Training Center, Petaluma, CA; Training Center, Groton, CT.

Length: 12 weeks (436–464 hours).

Exhibit Dates: 6/66–Present.

Objectives: To train enlisted personnel to be storekeepers.

Instruction: Lectures and practical exercises in procurement, typing, use of office machines, correspondence, inventory control, requisitions, publications, disbursing, transportation, property, travel, and pay and allowances.

Credit Recommendation: In the vocational certificate category, 1 semester hour in typing (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing (6/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

CG-1601-0001

Class C Field Oil Identification Laboratory

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (75 hours).

Exhibit Dates: 4/78–Present.

Objectives: To train Coast Guard petty officers to be field oil identification laboratory technicians.

Instruction: Theory and extensive laboratory practice on fluorescence spectroscopy and thin layer chromatography. Theory of basic petroleum chemistry laboratory procedures for constituent identification of oil samples.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in fluorescence spectroscopy, thin film chromatography, and laboratory practices (12/79).

CG-1701-0001

Refrigeration and Air Conditioning (Operation and Maintenance)

Course Number: MK-22.

Location: Reserve Training Center, Yorktown, VA.

Length: 5–6 weeks (175–210 hours).

Exhibit Dates: 6/77–Present.

Objectives: To train engineering petty officers in the operation and maintenance of refrigeration, air conditioning and heat pump equipment used on Coast Guard cutters, boats and stations.

Instruction: Lectures and practical exercises on gas laws, the properties of heat, pressure-temperature relationship, the refrigeration cycle, refrigerants, safety leak detectors and temperatures as they pertain to refrigeration, air conditioning and heat pumps.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in air conditioning and refrigeration (12/79).

CG-1704-0001

Aviation Machinist's Mate Class A
(Aviation Machinist's Mate)

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: *Version 1:* 18 weeks (636–787 hours). *Version 2:* 21 weeks (567 hours). *Version 3:* 24 weeks (630 hours).

Exhibit Dates: *Version 1:* 6/76–Present. *Version 2:* 7/72–5/76. *Version 3:* 2/65–6/72.

Objectives: To provide fundamental principles background in mathematics, physics and aerodynamics for further study on specific A/C systems and to provide training at entry-level in aircraft maintenance on several specific aircraft.

Instruction: Lectures and practical exercises in physics, mechanics, theory of flight, power plants, instruments, electrical systems, and propeller inspection and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in basic shop practice, 4 in basic aircraft maintenance (9/77). *Version 2:* In the vocational certificate category, 2 semester hours in flight theory, 2 in instruments and electrical/hydraulic systems, 2 in propeller and helicopter familiarization, 1 in inspection and maintenance procedures, 1 in helicopter power plants, and 5 in power plant theory, inspection, and maintenance (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in flight theory, 1 in propeller and helicopter familiarization, 1 in helicopter power plants, 2 in power plant theory, inspection, and maintenance, and, on the basis of institutional examination, credit in instruments and electrical/hydraulic systems (2/74); in the upper-division baccalaureate category, 2 semester hours in flight theory (2/74). *Version 3:* In the vocational certificate category, 2 semester hours in flight theory, 2 in instruments and electrical/hydraulic systems, 2 in propeller and helicopter familiarization, 1 in inspection and maintenance procedures, and 5 in power plant theory, inspection, and maintenance (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in flight theory, 1 in propeller and helicopter familiarization, 2 in power plant theory, inspection, and maintenance, and, on the basis of institutional evaluation, credit in instruments and electrical/hydraulic systems (2/74); in the upper-division baccalaureate category, 2 semester hours in flight theory (2/74).

CG-1704-0002

43D50 Propeller Maintenance Class C

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 2 weeks (60 hours).
Exhibit Dates: 2/76–Present.
Objectives: To develop skills in the maintenance and repair of a Hamilton Standard propeller.
Instruction: Instruction in disassembling, cleaning, inspecting, repairing, assembling, and testing Hamilton Standard propellers.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aviation maintenance (9/77).

CG-1704-0003

HU-16E Aircraft Maintenance Class C

Course Number: None.
Location: Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: 5 weeks (215 hours).
Exhibit Dates: 5/76–Present.
Objectives: To provide advanced technical training in the troubleshooting, repair, and maintenance of the HU-16E aircraft.
Instruction: Provides general instruction on the HU-16E aircraft and in the various major subsystems, including engine, fuel, aircraft electrical, fire control, and oxygen subsystems.
Credit Recommendation: In the vocational certificate category, 4 semester hours in aviation maintenance (9/77); in the lower-division baccalaureate/associate degree category, 4 semester hours in aviation maintenance technology (9/77).

CG-1704-0004

T58-GE-8B Engine Maintenance Class C

Course Number: None.
Location: Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: 3–4 weeks (125–128 hours).
Exhibit Dates: 2/76–Present.
Objectives: To train students in the maintenance and adjustment of T58-GE-8B Turk shaft engines.
Instruction: Students remove engines; disassemble, inspect, assemble, and install power plants in airframes; run engines; and make adjustments. Corrosion control and preservation techniques are included.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aviation mechanics (9/77); in the lower-division baccalaureate/associate degree category, 2 semester hours toward an aviation technology degree (9/77).

CG-1704-0005

HH-52A Airframe and Powertrain, Class C

Course Number: None.
Location: Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: 5 weeks (215 hours).
Exhibit Dates: 2/76–Present.
Objectives: To train students to maintain and adjust HH-52A airframe and powertrain systems.
Instruction: Maintenance instruction is in the area of gear boxes, drive shafts, main and tail rotor loads, and fuel, hydraulics, and oil systems. Students also learn how to replace and adjust components.
Credit Recommendation: In the vocational certificate category, 4 semester hours toward aviation airframe mechanics (9/77); in the lower-division baccalaureate/associate degree category, 4 semester hours toward an aviation technology degree (9/77).

CG-1704-0006

HC-131A Aircraft Maintenance Class C

Course Number: None.
Location: Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: 6 weeks (210 hours).
Exhibit Dates: 5/76–Present.
Objectives: Provides training in the repair, troubleshooting, and general maintenance of HC-131A aircraft.
Instruction: Introduction to HC-131A aircraft and ground handling equipment; instruction in the operation and maintenance of major engine subsystems, including fuel instrumentation and propellers, and in other aircraft subsystems, including electrical, safety, hydraulic, landing gear, air conditioning, pressurization, fire detection, and automatic pilot.
Credit Recommendation: In the vocational certificate category, 4 semester hours in aircraft maintenance (9/77).

CG-1704-0007

Aviation Machinist's Mate, Second Class, by Correspondence
(Aviation Machinist Mate, Second Class, by Correspondence)

Course Number: 205-7.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 10/77–Present.
Objectives: To provide the second class machinist's mate with those basic aircraft subjects needed for the mission.
Instruction: This correspondence course outlines aviation safety precautions, states the purpose and scope of the Coast Guard aircraft maintenance management system lists the kinds of aviation directives and publications, explains technical orders (T.O.), and identifies and explains the purpose of the Coast Guard aviation forms and reports. Aircraft hardware selection and identification is presented along with various safety methods. Basic corrosion control and preventive measures, are discussed. Jet propulsion engines, turbojet engines, and their systems are presented. A proctored end-of-course examination is required.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in power plant maintenance (1/79).

CG-1704-0008

Aviation Machinist's Mate, First Class, by Correspondence
(Aviation Machinist Mate, First Class, by Correspondence)

Course Number: 105-6.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 7/77–Present.
Objectives: To provide the student with aircraft maintenance management training including records and forms and to present general propeller principles.
Instruction: This correspondence course presents the subsections of an air station engineering section while describing the duties of each subsection. The technical order (T.O.) system and related records and maintenance publications are discussed. The operating principles of the 43D50 and 54H60 propellers are covered including their components and electrical systems. The course includes a proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in propeller maintenance (1/79).

CG-1704-0009

HC-130 Flight Engineer by Correspondence

Course Number: 445-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 4/77–Present.
Objectives: To provide standardized special training and introductory information to prospective flight engineer candidates.
Instruction: This correspondence course includes descriptions of the mechanical, communications, and navigational systems of the HC-130 aircraft. It also includes descriptions of preflight, inflight and postflight duties of the flight engineer on the HC-130 aircraft. The course includes ground handling, servicing, and safety precautions. Course includes proctored end-of-course examination.
Credit Recommendation: No credit is recommended because of the military-specific nature of the course (1/79)

CG-1704-0010

Flight Mechanic HH-52A by Correspondence

Course Number: 441-2.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 1/77–Present.
Objectives: To provide standardized specialty training on the HH-52A helicopter
Instruction: this correspondence course contains helicopter aerodynamics and control definitions. Also included are the mechanical, communications, and navigational systems along with preflight, inflight, and postflight duties.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/79).

CG-1704-0011

HH-3F Flight Mechanic by Correspondence

Course Number: 443-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 4/76–Present.
Objectives: To introduce the HH-3F helicopter to prospective flight mechanic candidates.
Instruction: This correspondence course includes basic helicopter theory of flight characteristics, aircraft and power-train systems, equipment and furnishings, and rescue equipment and procedures.
Credit Recommendation: No credit is recommended because of the military-specific nature of the course (1/79).

CG-1704-0012

C-131A Propeller Maintenance, Class C

Course Number: None.
Location: Aviation Technical Training Center, Elizabeth City, NC.

Length: 3 weeks (89-101 hours).
Exhibit Dates: 3/78–Present.
Objectives: To provide technological training necessary to perform preventive maintenance and repair on the Hamilton Standard 43E60-533 propeller.
Instruction: Lectures and practical exercises covering introduction to the propeller, introduction to prop removal, disassembly, reassembly, test and installation, troubleshooting, adjustments, line maintenance, and run-up.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft propellers (8/78); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft propellers (8/78).

CG-1704-0013

Aviation Structural Mechanic, Second Class, by Correspondence

Course Number: 207-6.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 10/77–Present.
Objectives: To provide an understanding of aviation maintenance administration, with specific information on hardware and advanced corrosion control.
Instruction: This correspondence course prepares student to perform general aviation safety in ground equipment, fuel and oxygen systems; student will be able to describe the Coast Guard a/c maintenance management system; student will use and explain records, directions, publications, and the T.O. system and use technical manuals and directives. Proper use and identification of aircraft hardware is presented; the theory of basic and advanced corrosion control is covered including painting for corrosion protection. There is a proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic aircraft maintenance (1/79)

CG-1704-0014

Industrial Hydraulics by Correspondence

Course Number: 413-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 5/79–Present.
Objectives: To provide a general overview of the operations and maintenance of industrial hydraulic systems.
Instruction: Course stresses indepth instruction about the elements of a total hydraulic system using the Sperry Vickers approach to hydraulic mechanisms. The student is introduced to hydraulics and the principles of hydraulics power. Each element of a typical hydraulic systems is studied, starting with hydraulic fluids, piping and sealing, reservoirs and fluid conditions, actuators, directional control units, servo valves, pressure controls, volume controls, pumps, instruments, and accessories. The proper definition of technical terms and principles is stressed as well as their standard geographical symbolic representation. There is a proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic industrial hydraulics (5/79).

CG-1704-0015

Aviation Structural Mechanic, First Class, by Correspondence

Course Number: 107-5.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 7/77–Present.
Objectives: To introduce the student to aviation maintenance administration and sheet metal layout and forming.
Instruction: This correspondence course explains the Coast Guard aircraft maintenance management systems, standard aircraft maintenance procedures, records, and required inspections. A description of the technical order system and procedures for requisitioning aviation material are included. The proper layout procedures used to fabricate and assemble aircraft sheet metal structural components are discussed; also included is a review of mathematics and blueprint reading. Emphasis is on Coast Guard procedures and application. There is no practical laboratory.
Credit Recommendation: Credit is not recommended due to the limited nature of the course (1/79).

CG-1704-0016

Aviation Corrosion Control by Correspondence

Course Number: 439-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 1/78–Present.
Objectives: To familiarize the student with aircraft corrosion and control.
Instruction: This correspondence course contains the theory of corrosion, the different forms of corrosion, preventive measures and the preservation of the aircraft surfaces. Course has a proctored end-of-course examination.
Credit Recommendation: Credit is not recommended due to the limited scope of the course (1/79).

CG-1704-0017

HC-130 Dropmaster (AC-130D-1) by correspondence

Course Number: 446-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 8/78–Present.
Objectives: To provide standardized specialty training on the HC-130 aircraft and to teach proper procedures and safety precautions for rescue equipment airdrop.
Instruction: The student will become familiar with the HC-130 aircraft including general arrangement, dimensions, emergency exits, powertrains, engine, and communication systems; student will understand groundhandling and servicing procedures and safety precautions, and be familiar with procedures for cargo restraint, procedures for rescue equipment airdrop, and the safety precautions involved.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (5/79).

CG-1704-0018

Aviation Survivalman, Second Class, by Correspondence

Course Number: 208-2.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 11/71–Present.
Objectives: To provide the student with the fundamentals of survival equipment.
Instruction: This correspondent course contains a review of physics and electricity and describes jato, pyrotechnics and parachute lofts. Identification of basic survival equipment, protective clothing, small arms and ammunition, the function of the oxygen system and use of related hand tools are covered as well as the inspection and repair of parachutes.
Credit Recommendation: Credit is not recommended due to the military-specific nature of the training involved (2/79).

CG-1704-0019

Aviation Survivalman, First Class, by Correspondence

Course Number: 108-3.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 10/77–Present.
Objectives: To provide the student with the basic knowledge in aviation administration, ordnance, and fabric repair.
Instruction: This correspondence course describes the Coast Guard aircraft maintenance management system, and maintenance inspections and cites the maintenance-level structure and the prime unit concept. It further includes records, technical order systems, supply system, and the establishment of an ordnance library. In addition, it presents parachute lofts and parachute maintenance. It also covers pyrotechnics and jato systems.
Credit Recommendation: Credit is not recommended due to its military-specific application (1/79).

CG-1704-0020

Hydraulic Systems and Equipment Operation and Maintenance

Course Number: MK-6.
Location: Reserve Training Center, Yorktown, VA.
Length: 2 weeks (68 hours).
Exhibit Dates: 5/78–Present.
Objectives: To train qualified enlisted personnel (machinery technicians) to operate and maintain hydraulic components and systems.
Instruction: Lectures and practical exercises in fundamentals of hydraulics and associated subjects including operations and repair of hydraulics systems and components, hydraulic circuit construction and operation, troubleshooting and adjustment techniques and maintenance procedures.
Credit Recommendation: In the vocational certificate category, 2 semester hours in hydraulics and pneumatics (12/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in hydraulics and pneumatics laboratory (12/79).

CG-1708-0001

Boatswain's Mate, Class A
(Boatswain's Mate School)

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.
Length: 8-12 weeks (222-424 hours).
Exhibit Dates: *Version 1:* 3/79-Present. *Version 2:* 6/66-2/79.
Objectives: To train enlisted personnel to perform as boatswain's mates.
Instruction: *All Versions:* Lectures and practical exercises in seamanship and associated subjects, including information, nomenclature, and exercises in marlinspike; boat handling, gunnery; cargo handling; piloting; nuclear, biological, and chemical defenses; radiotelephone operation and semaphore communications; and fire-fighting procedures. *Version 1:* Includes electronic navigation and visual communications.
Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in marine technology (12/79); In the lower-division baccalaureate/associate degree category, 6 semester hours in marine technology (12/79). *Version 2:* In the vocational certificate category, 4 semester hours in marine technology (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in marine technology (6/74).

CG-1708-0002

Boatswain's Mate Third Class by Correspondence

Course Number: 309-9.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 2/76-Present.
Objectives: This is a nonresident course to train Boatswain's Mates at the seaman level.
Instruction: The student is required to read and study seven pamphlets covering six topics. Each lesson has reading assignments followed a series of questions and a comprehensive end-of-course test. The areas of instruction covered by this course are surface preparation and painting; small boat operation; search and rescue; firefighting, watches, duties and record keeping; introduction to basic minor aids to navigation, and Marlinspike seamanship. After successful completion of the course the student will understand the organization manual, watch quarter and station bills, will be able to stand watch, and be able to keep records and logs. The student will also be able to use naviation equipment and maneuver a boat, to know paint systems, safety aspects in painting and stowage, recognize anchor chain markings and parts, and know aids to navigation, their functions, and how to troubleshoot minor aids to navigation.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introductory basic seamanship (5/79).

CG-1708-0003

Boatswain's Mate Second Class by Correspondence

Course Number: 209-7.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 1/77-Present.
Objectives: This a nonresident course to train boatswain's mates at the second-class level.
Instruction: The student is required to read and study text material, solve problems, answer questions, and pass a comprehensive end-of-course examination. The areas of instruction covered are navigation and weather; fire control and gunnery; deck maintenance; small boat handling; cargo handling; stowage; underway replenishment; and seamanship. Upon completion of this course, the student will be able to deal with communications, use various instruments and electronic equipment for navigation and piloting, use tide and current tables, take weather readings and describe the causes of weather, describe fire control organization, identify the functions of various small weapons and know safety precautions when small weapons are used or stowed. Student will also be able to explain deck duties using block and tackle, wire roping, anchoring and block tackle, and will identify equipment and materials used in towing, know safety precautions for handling and stowing cargo, maintain cargo handling equipment, and identify the signals for underway replenishment at sea.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in Seamanship II (5/79).

CG-1708-0004

Boatswain's Mate First Class by Correspondence

Course Number: 109-5.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 6/78-Present.
Objectives: To provide training to boatswain's mates at the second class level through reading and studying textual material, performing sample problems, answering lesson questions, and passing the proctored end-of-course examination.
Instruction: The areas of instruction covered include small craft piloting, boat and deck maintenance, rigging and replenishment, the gun captain, damage control repair party, and introduction to aids to navigation. The student will learn to use navigation equipment in piloting small craft; will know and understand the rules of the road; will properly maintain deck spares, repair small craft, rig booms and recognize safety hazards. Student will learn the proper equipment to use in damage control and will recognize basic functions of aids to navigation components, basic theory of weight handling equipment, and the effects of ship stability.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in advanced seamanship (5/79).

CG-1708-0005

Navigation Rules by Correspondence

Course Number: 469-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 4/78-Present.
Objectives: To provide training concerned with the International Regulations for preventing collisions at sea dated 1972 (72 COLREGS) and the United States Inland Rules of the Road.
Instruction: A nonresident training course including steering and and sailing rules, lights and shapes, sound and light signals, inland rules and pilot rules. There is a proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation rules (5/79).

CG-1708-0006

Piloting by Correspondence

Course Number: 416-3.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 2/79-Present.
Objectives: The course presents coastal navigation principles.
Instruction: The student will be able to define a line of position and plot lines of position using aids to navigation, shore objects, and radio sources; student will be able to solve advanced piloting problems using running fixes, position circles and running fixes with changes in courses and speed. The course includes discussion on charts, aids to navigation, magnetic compass, dead reckoning, piloting, current sailing and review of how all these fit together in a navigational system of piloting in a boat. There is a proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in coastal navigation (5/79).

CG-1710-0001

Damage Controlman

Course Number: None.
Location: Training Station, Governors Island, NY; Training Station, Groton, CT.
Length: *Version 1:* 15 weeks (434 hours). *Version 2:* 16 weeks (587 hours).
Exhibit Dates: *Version 1:* 5/74-Present. *Version 2:* 1/64-4/74.
Objectives: To train enlisted personnel to maintain and repair boats.
Instruction: Lectures and practical exercises in boat damage repair, including finish and rough carpentry; concrete mixing, pouring, and forming; plumbing fittings and piping; sheet metal; structural steel welding; fire fighting; and first aid.
Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in welding, 2 in pipesetting, 2 in maintenance and repair (8/78). *Version 2:* In the vocational certificate category, 12 semester hours in repair and maintenance ashore and afloat (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in repair and maintenance ashore and afloat (5/74).

CG-1710-0002

Damage Control Welding, Class C
(Damage Controlman Welding, Class C)
(Damage Controlman Class C)

Course Number: None.
Location: Training Center, Governors Island, NY.
Length: 7 weeks (226-310 hours).
Exhibit Dates: 8/77-Present.
Objectives: To provide advanced skills in welding (gas and arc) of ferrous and nonferrous materials.
Instruction: Course includes welding fundamentals, metal arc welding, and gas-shielded arc welding. Students will learn fundamentals of flat, horizontal, vertical, and overhead position welding; gas tungsten arc welding to include familiarization with parts, settings, safety precautions, and practical application of the process on steel and aluminum; gas metal arc welding to include familiarization with torch, settings,

safety precautions, practical application of the process, and basic theory of aluminum welding.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in welding (9/78).

CG-1710-0003

Damage Controlman First Class by Correspondence

Course Number: 115-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 2/72–Present.

Objectives: The purpose of this course is to provide a basic understanding in performing shore structure carpentry, piping layout and maintenance, and sheet metal fabrication.

Instruction: This correspondence course covers basic wood carpentry for building, piping layout and maintenance, sheet metal and sheet plate fabrication and the principles of various types of welding joints, both in ferrous and nonferrous metals, especially aluminum welding. All these activities are tied together in material on coast estimating for buildings. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic wood building carpentry, 1 in sheet metal fabrication, 1 in ferrous and nonferrous welding (5/79).

CG-1710-0004

Damage Controlman Second Class by Correspondence

Course Number: 215-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 8/77–Present.

Objectives: A nonresident course designed to provide basic skills in and understanding of damage control.

Instruction: The areas of instruction covered by the course are nuclear, biological and chemical (NBC) warfare defense, welding principles, shielding metal arc welding, gas-shielded arc welding, oxyacetylane cutting and welding, installing suspended ceilings, acoustical tile, installing roofing, laminated and finishing woods, plumbing, blueprint and diagram reading, and inspection and maintenance of firefighting equipment. There is a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic welding, 2 in blueprint reading, 2 in basic carpentry, 2 in basic plumbing (5/79).

CG-1710-0005

Shore Structure Maintenance by Correspondence

Course Number: 479-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 5/78–Present.

Objectives: To provide an overview of building and facility maintenance from woodworking machinery, site development and construction to termites and wood decay.

Instruction: This course covers the major aspects of maintenance of buildings and facilities used by Coast Guard shore stations. Materials include woodworking machine and power tools, site development and construction, termites and wood decay, interior wiring, shore structure carpentry, heavy construction methods and materials, cost estimating for facilities, concrete and masonry construction, plumbing and pipefitting.

Credit Recommendation: In the vocational certificate category, 4 semester hours in wooden building maintenance, 2 in concrete and masonry construction (5/79).

CG-1710-0006

Pratt and Whitney FT4A Gas Turbine Engine Operation and Maintenance

Course Number: MK-4.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 5/78–Present.

Objectives: To train advanced machinery technicians and engineering officers in the operation and maintenance of the 18,000 HP Pratt and Whitney FT-4 gas turbine and its associated components.

Instruction: Lectures and practical exercises pertinent to the Pratt and Whitney FT4A marine gas turbine engine including gas turbine engine operation, control, construction, lubrication, inspection, maintenance and malfunction analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in gas turbine laboratory (12/79).

CG-1710-0007

General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance

Course Number: MK-3.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 9/78–8/79.

Objectives: To train machinery technician petty officers in the operation of the solar T-10005 emergency gas turbine.

Instruction: Classes and practical exercises the theory of gas turbines, nomenclature and system characteristics of the solar T-10005 turbine. Practical experience in maintenance and system requirements.

Credit Recommendation: In the vocational certificate category, 1 semester hour in gas turbine laboratory (12/79).

CG-1712-0001

Engineman, Class A

Course Number: None.

Location: Training Center, Groton, CT; Reserve Training Center, Yorktown, VA.

Length: 14–16 weeks (310-581 hours).

Exhibit Dates: 8/66–Present.

Objectives: To train personnel to perform as engineman strikers and enginemen.

Instruction: Lectures and practical exercises in the functions of engineman strikers and enginemen, third class, including tools and measuring instruments, gas welding and cutting, hydraulics, basic engines, engine fuel systems, general motors unit injector, engine controls, GM-71 auxiliary pumps, engine overhaul, diesel engine troubleshooting, lubricating oil testing, jacket water treatment and testing, centrifugal purifiers, electricity, outboard motors, boilers, gas turbines, refrigeration, and power transmission systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in diesel engines and auxiliaries (6/75); in the lower-division baccalaureate/associate degree category, 4 semester hours in automotive technology, 4 as an elective in mechanical technology (6/75).

CG-1712-0002

Diesel Engine and Electrical Operation and Maintenance (Caterpillar Models D-397–399, D-333, D-343, D-353, D-379)

Course Number: MK-24.

Location: Reserve Training Center, Yorktown, VA.

Length: 3 weeks (103 hours).

Exhibit Dates: 10/79–Present.

Objectives: To train qualified enlisted personnel (machinery technicians) in diesel operation and maintenance.

Instruction: Students learn the operation and maintenance of 200-300 KW Caterpiller diesel generator sets including disassembly and inspection of diesel engine camshaft bearings, connecting rods, pistons, cylinder liners and head assemblies, fuel pump assemblies, accessory drive voltage control components, brushes, sliprings, bearings and generator drive alignment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel generator sets (12/79).

CG-1714-0001

Electrician's Mate Class A
(Electrician's Mate School)

Course Number: None.

Location: Training Station, Groton, CT; Training Center, Governors Island, NY.

Length: *Version 1:* 17 weeks (587 hours). *Version 2:* 16 weeks (580 hours).

Exhibit Dates: *Version 1:* 1/78–Present. *Version 2:* 8/61–12/77.

Objectives: To train enlisted personnel to inspect, maintain, and operate electrical equipment on small boats.

Instruction: *Version 1:* Instruction is oriented toward teaching the fundamentals of generation, control and distribution of electricity with specific emphasis on equipment used by the Coast Guard. *Version 2:* Lectures and practical exercises in mathematics review, DC and AC circuits, transformers, DC motors and generators, alternators, synchronous and asynchronous three-phase motors, simple-phase motors, and controllers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electrical maintenance (8/78). *Version 2:* In the vocational certificate category, 9 semester hours in electricity (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity on the basis of institutional evaluation (6/75); in the upper-division baccalaureate category, 3 semester hours in electricity on the basis of institutional evaluation (6/75).

CG-1714-0002

1. Gunner's Mate, Class A
   (GM "A")
2. Basic Gunner's Mate, Class A

Course Number: None.

Location: *Version 1:* Training Center, Governors Island, NY. *Version 2:* Training Center, Groton, CT.

Length: 16–18 weeks (502–630 hours).

Exhibit Dates: *Version 1:* 1/72–Present. *Version 2:* 6/66–12/71.

Objectives: To train enlisted personnel to perform as gunner's mates.

Instruction: *Version 1:* Lectures and practical exercises to include mathematics and physical science principles applied to ordnance supplies and equipment, use of hand and cutting tools, measuring instruments, and application of electrical circuitry and hydraulics to pumps, valves and transmissions and other ordnance systems. *Version 2:* Lectures and practical exercises in basic mathematics, hand tools and basic machines, electricity, ammunition, basic hydraulics, power drive and projectile hoists, and small arms.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in mechanical, electrical or fluid power technology and related mathematics/science, 1 in inspection/bench work (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical, electrical or fluid power technology and related mathematics/science, 1 in inspection/bench work (6/75). *Version 2:* In the vocational certificate category, 3 semester hours in electricity, 3 in basic mathematics, 3 in hydraulics, 3 in machine shop (5/74).

CG-1714-0003

AVIATION ELECTRICIAN'S MATE, SECOND CLASS, BY CORRESPONDENCE

(Aviation Electrician Mate, Second Class, by Correspondence)

Course Number: 201-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 10/77–Present.

Objectives: To provide an overview of line safety and maintenance management while providing specific knowledge on the aircraft electrical systems and instruments.

Instruction: This correspondence course contains line safety measures, maintenance management systems, aircraft hardware, corrosion and its control. In addition it covers alternating current (a/c) electrical maintenance techniques, use of meters, electrical symbols, types of instruments and test equipment. It also covers aircraft storage, batteries, generators, power systems and their control devices. Course has required end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic elect[illegible], 1 in aircraft instruments (1/79).

CG-1714-0004

AVIATION ELECTRICIAN'S MATE, FIRST CLASS, BY CORRESPONDENCE

(Aviation Electrician Mate, First Class, by Correspondence)

Course Number: 101-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 4/76–Present.

Objectives: To acquaint the student with Coast Guard administrative procedures and also provide knowledge of alternating current (a/c) and basic electronic circuitry theory.

Instruction: This correspondence course contains a description of the organization of the Coast Guard aircraft management system, its logbooks, and associated records. The theory of basic types of electronics circuits, electron amplifiers, and oscillators is presented. Basic theory of alternating current, inductive and capacitive reactance, power systems and electronic components is explained. Course has no laboratory component; proctored end-of-course examination is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (1/79).

CG-1714-0005

ELECTRICIAN'S MATE THIRD CLASS BY CORRESPONDENCE

(Electrician's Mate Third Class by Correspondence)

Course Number: 319-7.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 8/77–Present.

Objectives: To present basic electricity through semi-conductor devices and the theory of operation and maintenance on AC and DC motors and generators.

Instruction: This correspondence course offers basic AC and DC electricity including series and parallel circuits, inductance, capacitance, and impedance. Theory and maintenance of AC and DC motors and generators, transformers, and batteries are covered. There is a brief introduction to the theory and testing procedures on transistor and semiconductor devices. Course provides no laboratory experience. There is a proctored end-of-course examination.

Credit Recommendation: None ; In the lower-division baccalaureate/associate degree category, 1 semester hour in electricity/electromechanical technology (1/79).

CG-1714-0006

GUNNER'S MATE, CLASS C

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 10 weeks (316 hours).

Exhibit Dates: 1/74–Present.

Objectives: To provide advanced training in the use of antisubmarine warfare equipment, fire control, and 5' gun use.

Instruction: Course teaches administration and management of various ordnance systems and the operation, adjustment, and maintenance of weapons and associated equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/78).

CG-1714-0007

GUNNER'S MATE ADVANCED

(Gunner's Mate Advanced ADT)

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (75 hours).

Exhibit Dates: 4/77–Present.

Objectives: To improve the knowledge of reservists serving as first class gunner's mates.

Instruction: Course includes training in service, maintenance, and operation of various gunnery systems used by the Coast Guard.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/78).

CG-1714-0009

GUNNER'S MATE SECOND CLASS BY CORRESPONDENCE

Course Number: 229-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 5/70–Present.

Objectives: To provide training to the gunner's mate third class to assist in the attainment of second class rating.

Instruction: The nonresident course includes basic electricity, hydraulic system components, the fuse setting, projectile hoist, the 5'/38 rammer machine gun, surface vessel torpedo tube MK32. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic hydraulics, 2 in basic electricity (5/79).

CG-1714-0010

ELECTRICIAN'S MATE SECOND CLASS BY CORRESPONDENCE

(Electrician Mate Second Class by Correspondence)

Course Number: 219-8.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 11/77–Present.

Objectives: Course requires student to study basic electrical and electronic principles and circuit theory as applied to synchro systems, AC and DC motors and generators as well as selected control and protection devices.

Instruction: This is a correspondence course with no formal laboratory experience required. Basic principles of AC and DC circuits as applied to electrical machines and their control and protective devices are included. Motor starters, protective relay equipment, magnetic amplifiers, synchros and transformers are covered in limited detail. Solid-state electronic amplifiers, regulated power supplies, and selected control and wave-shaping devices and circuits are presented. Course includes proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electrical/electronic theory (1/79).

CG-1714-0011

ELECTRICIAN'S MATE FIRST CLASS BY CORRESPONDENCE

(Electrician Mate First Class by Correspondence)

Course Number: 119-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 11/77–Present.

Objectives: To present the procedures for maintenance and repair of motors and generators, and an introduction to digital computer concepts, terminology, and circuits.

Instruction: This correspondence course presents the procedures for the maintenance and repair of motors and generators including cleaning, removing and replacing bearings, commutators and slip rings, and testing. Also covered is an introduction to voltage and frequency regulators, power protective devices, and types of controllers, as well as an introduction to digital computer principles including number systems, Boolean algebra, logic gates, flip-flops, counters, registers, decoders and adders. The course requires a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical power theory (1/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in digital electronics theory (1/79).

CG-1714-0012

Gunner's Mate First Class by Correspondence

Course Number: 129-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 3/74–Present.

Objectives: To provide training for the second class gunner's mate to progress to first-class status.

Instruction: This nonresident course covers administration, planned maintenance systems, ammunition, explosives, electrical power system components, the General Electric drive, dual purpose gun, alignment, and fire control systems. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electricity, 2 in fundamentals of synchros, 1 in hydraulics (5/79).

CG-1715-0001

Aviation Electronics Technician, Class A

Course Number: None.

Location: Aviation Repair and Supply Center, Elizabeth City, NC; Aircraft Repair and Supply Center, Elizabeth City, NC; Training Center, Groton, CT.

Length: *Version 1:* 28 weeks (1000–1015 hours). *Version 2:* 16–31 weeks (513–994 hours).

Exhibit Dates: *Version 1:* 2/70–Present. *Version 2:* 12/65–1/70.

Objectives: To provide selected enlisted personnel with the understanding and knowledge necessary to fulfill the requirements for Aviation Electronics Technician, Third Class.

Instruction: Electronics fundamentals; theory of operation of airborne electronics systems; troubleshooting and testing airborne electronics systems; operating associated test equipment. Lecture and testing (699 hours) and laboratory (281 hours) with approximately 70% of time devoted to general electronics topics; remainder is devoted to military specific subjects.

Credit Recommendation: *All Versions:* In the vocational certificate category, 15 semester hours toward a certificate in electronics technology (9/77), in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics (9/77). *Version 2:* In the vocational certificate category, 21 semester hours for technical courses and 3 in mathematics (3/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in electricity and electronics (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity and electronics (3/74).

CG-1715-0002

1. Telephone Technician A School
2. Telephone Technician School
3. Telephone Technician, Class A

Course Number: None.

Location: *Version 1:* Training Center, Governors Island, NY. *Version 2:* Training Center, Governors Island, NY. *Version 3:* Training Center, Groton, CT.

Length: *Version 1:* 12–14 weeks (497–540 hours). *Version 2:* 14 weeks (420 hours). *Version 3:* 21 weeks (777 hours).

Exhibit Dates: *Version 1:* 12/75–Present. *Version 2:* 12/72–11/75. *Version 3:* 12/64–11/72.

Objectives: To train enlisted personnel to perform as telephone technicians.

Instruction: *Version 1:* A qualitative study of telephony with descriptions of telephone sets and associated equipment including: switchboards, public address and intercom systems, teletypewriter and radio teletype to include their installation, maintenance and repair. *Version 2:* Lectures and practical exercises in model 28/KSR/ASR teletypes; telephone line construction; cable splicing; switchboards; intercommunication systems; theory of telephony, and radio teletype. *Version 3:* Lectures and practical exercises in telephone repair and maintenance procedures, including background instruction in mathematics, electric circuits, electronics (vacuum tubes), and telephony.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in telecommunication systems (8/78). *Version 2:* In the vocational certificate category, 9 semester hours in telecommunication systems (6/75). *Version 3:* In the vocational certificate category, 20 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (12/68).

CG-1715-0003

Telephone Technician, Class B

Course Number: None.

Location: Training Center, Groton, CT.

Length: 25 weeks (925 hours).

Exhibit Dates: 6/65–12/68.

Objectives: To train enlisted personnel to operate and maintain specific telephone systems.

Instruction: Lectures and practical exercises in the maintenance of specific telephone systems, including DC and AC circuits, vacuum tubes and transistors, electronic circuits, telephone and telegraph systems (baseband and carrier), microwave radio, and operation of specific telephone systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 2 semester hours in electricity (12/68).

CG-1715-0004

AN/FPN-38 Timer Synchronizer

Course Number: None.

Location: *Version 1:* Loran-C School, Groton, CT. *Version 2:* Electronics Engineering Station, Wildwood, NJ.

Length: 6 weeks (165 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train personnel to operate and maintain a specific Loran system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/FPN-38 Loran system, including components, circuitry, timing and divider action, and alignment procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

CG-1715-0005

AN/FPN-41 Timer

Course Number: None.

Location: Loran-C School, Groton, CT.

Length: 4 weeks (173 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train enlisted personnel to operate and maintain AN/FPN-41 timers.

Instruction: Lectures and laboratories in timing and signal handling; basic servo loops, including envelope and phase timing; troubleshooting procedures; and detailed maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

CG-1715-0006

AN/SPN-29 Receiver

Course Number: None.

Location: Loran-C School, Groton, CT.

Length: 5 weeks (203 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To train enlisted personnel to operate, maintain, and align AN/SPN-29 receivers.

Instruction: Lectures and laboratories in fundamentals of Loran-C and AN/SPN-29 receivers, and operation and maintenance procedures.

Credit Recommendation: No credit because of the limited specialized nature of the course (4/74).

CG-1715-0007

Loran A Enlisted, Class C

Course Number: None.

Location: Training Center, Groton, CT.

Length: 4 weeks (141 hours).

Exhibit Dates: 8/66–12/68.

Objectives: To train technicians to perform maintenance on Loran transmitting stations.

Instruction: Lectures and practical exercises in Loran system maintenance, including Loran antennas and timer introduction; block diagram, voltage regulator, power supplies, oscillator, synchronizer control unit, frequency divider, time delay unit, radio receiver, electrical synchronizer and synchronizer indicator, oscilloscope, switchgear, transmitter and amplifier, and transmitting antenna coupler maintenance; watchstanding techniques; and Loran publications, reports, and forms.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

CG-1715-0008

AN/SPN-30 Receiver

Course Number: None.

Location: Training Center, Groton, CT.

Length: 8 weeks (110 hours).

Exhibit Dates: 5/66–12/68.
Objectives: To train enlisted personnel to operate and maintain the Loran C and AN/SPN-30 receiver.
Instruction: Lectures and laboratories in Loran C and AN/SPN-30 receiver introduction; power supplies, servo loops, and automatic gain control loop; signal-handling section; alarm indication circuits; pulse rate and code group generators; and Loran indicator operation and maintenance techniques.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (4/74).

CG-1715-0009

AN/FPN-46 MONITOR/TIMER
(AN/FPN-46 Timer)

Course Number: None.
Location: Loran-C School, Groton, CT.
Length: 4–5 weeks (170 hours).
Exhibit Dates: 11/62–Present.
Objectives: To train enlisted personnel to operate, maintain, and align the AN/FPN-46 timer.
Instruction: Lectures and laboratories in AN/FPN-46 timer (Loran C system) operation, maintenance, and alignment, including Loran C system review; timing and signal handling; basic servo loops, master control unit, envelope control unit and phase control unit chassis, frequency divider unit, multipulse unit, switched attenuator, detector unit, and oscilloscope control unit familiarization; and alignment, testing, and troubleshooting procedures.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/78).

CG-1715-0010

1. ELECTRONICS TECHNICIAN, CLASS A (Electronics Technician, A School)
2. ELECTRONICS TECHNICIAN, CLASS A
3. BASIC ELECTRONICS, CLASS A

Course Number: None.
Location: *Version 1:* Training Center, Governors Island, NY. *Version 2:* Training Center, Governors Island, NY. *Version 3:* Training Center, Groton, CT.
Length: *Version 1:* 17 weeks (512 hours). *Version 2:* 17 weeks (578 hours). *Version 3:* 24 weeks (888 hours).
Exhibit Dates: *Version 1:* 3/72–Present. *Version 2:* 4/68–2/72. *Version 3:* 6/65–3/68.
Objectives: To train enlisted personnel to operate, maintain, and repair electronics equipment.
Instruction: *Version 1:* Lectures and practical exercises to include AC and DC circuit theory, vacuum tube and transistor electronics and communication principles and systems. *Version 2:* Lectures and practical exercises in electronic equipment circuit analysis, AC and DC circuits, transformers, power supplies, vacuum tubes, transistors, AM/FM/SSB transmitters and receivers, VHF/UHF systems, servo systems, radar, Loran, sonar, fathometers, and test equipment operation, maintenance, and repair. *Version 3:* Lectures and practical exercises in electronic equipment circuit analysis, AC and DC circuits, transformers, power supplies, vacuum tubes, transistors, AM/FM/SSB transmitters, VHF/UHF systems, servo systems, radar, Loran, sonar, fathometers, and test equipment operation, maintenance and repair with basic mathematics and physics and a more thorough coverage of electronic circuits.
Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in electronic circuit theory (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic technology, 2 in electronic technology laboratory (6/75). *Version 2:* In the vocational certificate category, 15 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 20 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

CG-1715-0011

ELECTRONICS TECHNICIAN COMMUNICATIONS, CLASS A
(Basic Electronics, Class A)

Course Number: None.
Location: Training Center, Governor's Island, NY; Training Center, Groton, CT.
Length: 24 weeks (888–922 hours).
Exhibit Dates: 6/65–Present.
Objectives: To train enlisted personnel to operate, repair, and maintain electronic communications equipment.
Instruction: Lectures and practical exercises in electronic communications equipment circuit and systems analysis, including AC and DC circuits, transformers, power supplies, vacuum tubes, transistors, test equipment, electronics circuits, transmitters and receivers, VHF and UHF systems, servo systems, digital circuits, teletype, radio beacon, antennas and transmission lines, and computer mathematics. Basic Electronics, Class A course includes basic mathematics and physics, more electronic circuit theory, and less study of equipment.
Credit Recommendation: In the vocational certificate category, 20 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

CG-1715-0012

AVIATION ELECTRONICS TECHNICIAN, CLASS A

Course Number: None.
Location: *Version 1:* Training Center, Groton, CT. *Version 2:* Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: 16–31 weeks (513–994 hours).
Exhibit Dates: 12/65–12/68.
Objectives: To train enlisted personnel to operate, repair, and maintain aviation electronic equipment.
Instruction: Lectures and practical exercises in aviation electronic equipment circuit analysis, basic mathematics, AC and DC circuits, basic physics, magnetism, transformers, power supplies, vacuum tubes, transistors, electronic circuits, test equipment operation, AM/FM/SSB transmitters and receivers, synchros, sonar, Loran, radar, and maintenance and repair procedures.
Credit Recommendation: In the vocational certificate category, 24 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in electricity or electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74).

CG-1715-0013

ORDNANCE EQUIPMENT, CLASS C

Course Number: None.
Location: Training Center, Groton, CT.
Length: 8 weeks (429 hours).
Exhibit Dates: 6/66–12/68.
Objectives: To upgrade knowledge and practical skills of fire control technicians and gunner's mates in specific Coast Guard ordnance, fire control, and antisubmarine warfare systems.
Instruction: Lectures and practical exercises in operation and maintenance of five-inch gun power drive, gun radar system, fire control systems, projectile hoists, loading systems, mounting systems, battery alignment, explosive demolition, 50 caliber machine gun, antisubmarine warfare devices, and 81mm mortar, and review of electricity and hydraulics.
Credit Recommendation: In the vocational certificate category, 2 semester hours in basic electricity, 2 in basic hydraulics (6/75).

CG-1715-0014

AN/AYN-2, AN/ASN-50 FLIGHT DIRECTOR AND GYROCOMPASS SYSTEMS CLASS C

Course Number: None.
Location: Aircraft Repair and Supply Center, Elizabeth City, NC.
Length: 3 weeks (105 hours).
Exhibit Dates: 9/76–Present.
Objectives: To train students to recognize, isolate, and correct malfunctions in AYN-2 Flight Director/ASN-50 Attitude Reference Systems, and to calibrate and perform preventive maintenance on the equipment.
Instruction: Course builds on previous electronics fundamentals training. Lectures and testing and laboratory work in the systems and specific test equipment, including a brief review of transistor and gyro fundamentals. Study beyond lecture/laboratory (73/29 hours) recommended but not required.
Credit Recommendation: In the vocational certificate category, 2 semester hours in avionics maintenance (9/77).

CG-1715-0015

AIDS TO NAVIGATION MECHANICIAN

Course Number: None.
Location: Training Center, Groton, CT.
Length: 6 weeks (212 hours).
Exhibit Dates: 7/65–12/68.
Objectives: To train enlisted personnel in the installation, maintenance, repair, and shop overhaul of aids-to-navigation equipment.
Instruction: Lectures and practical exercises in basic concepts and theory of electricity including AC and DC fundamentals, AC and DC motors and generators, batteries, minor aid lenses and lanterns, lamp chargers, radio beacons, timers, and fog signals.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity, 3 in maritime trades (navigational aids repair) (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity, 3 in maritime trades (navigational aids repair) (6/75).

CG-1715-0016

FIRE CONTROL (FT) TECHNICIAN, CLASS C
(Gun Fire Control Systems MK-52 and MK-56)

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: *Version 1:* 13 weeks (355-469 hours). *Version 2:* 16 weeks.

Exhibit Dates: *Version 1:* 1/77-Present. *Version 2:* 9/73-12/76.

Objectives: To train personnel to operate and maintain a gun fire control system.

Instruction: *Version 1:* Course covers fixed and mixed trigger circuits, gate circuits, pulse and trigger circuits, receiver and AFC circuits, range error and sense circuits, and tracking and angle error circuits. Also includes radar operation and troubleshooting, train amplifiers, amplidyne generators, filter, coast and switch smoothing circuits. *Version 2:* Lectures and practical exercises in the operation, maintenance, and repair of a military gun fire control system, including information on the radar transmitter and receiver system, power systems, and a brief overview of fire control computers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in communications electronics (8/78). *Version 2:* In the vocational certificate category, 1 semester hour in basic communications laboratory (6/75).

CG-1715-0017

RADARMAN, CLASS A

Course Number: None.

Location: Radarman, Class A School, Governors Island, NY.

Length: 18 weeks (450-540 hours).

Exhibit Dates: 7/72-Present.

Objectives: To train personnel in the operation of a radar system aboard a Coast Guard cutter.

Instruction: Lectures and practical exercises in the use of radar in plotting and echo interpretation, radar operation and equipment, and specific techniques relating to shipboard operation of radar systems. Some sections of course dealing with Naval operations and communications are classified.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic radar use and operation (6/75).

CG-1715-0018

CLARINET PILGRIM

Course Number: None.

Location: Training School, Governors Island, NY.

Length: 3 weeks (90 hours).

Exhibit Dates: 9/72-Present.

Objectives: To train personnel in the operation and maintenance of specialized military communication equipment.

Instruction: Lectures and practical exercises in the theory, operation, maintenance, and troubleshooting of special military communication systems including JK flip flop, shift registers, ring counters, signal selectors, digital data receivers, and specialized equipment related to the military system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic communications laboratory (6/75).

CG-1715-0019

1. AVIATION ELECTRONICS TECHNICIAN CLASS C AN/ARC-94
   (AN/ARC-94 Class C and 490 T High Frequency (HF) Communications System and Antenna Coupler)
2. AVIONICS EQUIPMENT, CLASS C, AN/ARC-94

Course Number: None.

Location: Aircraft Repair and Supply School, Elizabeth City, NC.

Length: *Version 1:* 4 weeks (140 hours). *Version 2:* 3 weeks (98 hours).

Exhibit Dates: *Version 1:* 2/76-1/76. *Version 2:* 1/73-Present.

Objectives: To train personnel in the operation, maintenance, and repair procedures of a high-frequency communication transceiver.

Instruction: *All Versions:* Lectures and practical exercises in the specific circuitry and modules associated with specific military communication equipment. *Version 2:* Includes 490 T HF communications systems and antenna coupler.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic communication laboratory (9/77). *Version 2:* In the vocational certificate category, 1 semester hour in basic communication laboratory (6/75).

CG-1715-0020

AVIONICS EQUIPMENT, CLASS C, AN/ARN-79

Course Number: None.

Location: Aircraft Repair and Supply School, Elizabeth City, NC.

Length: 2 weeks (65 hours).

Exhibit Dates: 1/73-Present.

Objectives: To train personnel to operate, maintain, and repair a military electronic altimeter.

Instruction: Lectures and practical exercises in the specific modules used in a military altimeter along with specific test equipment used in maintenance and repair.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

CG-1715-0021

AVIONICS EQUIPMENT, CLASS C, AN/ARN-52(V)

Course Number: None.

Location: Aircraft Repair and Supply School, Elizabeth City, NC.

Length: 3 weeks (98 hours).

Exhibit Dates: 1/73-Present.

Objectives: To provide personnel with background needed to operate, maintain and repair a specific navigation system.

Instruction: Lectures and practical exercises in the subsystems associated with a specific navigation system including block diagram analysis, IF amplifiers, RF amplifiers, and testing of components with special test equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic communication laboratory (6/75).

CG-1715-0022

AVIONICS EQUIPMENT, CLASS C, AN/ARC-51A

Course Number: None.

Location: Aircraft Repair and Supply School, Elizabeth City, NC.

Length: 2 weeks (65 hours).

Exhibit Dates: 1/73-Present.

Objectives: To train personnel to operate, maintain, and repair an ultra high frequency communication transceiver.

Instruction: Lectures and practical exercises in the basic modules used in a military communication transceiver using specific military test equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

CG-1715-0023

LORAN OFFICERS INDOCTRINATION

Course Number: None.

Location: Training Center, Groton, CT.

Length: 3 weeks (106 hours).

Exhibit Dates: 7/66-12/68.

Objectives: To qualify personnel to perform supervisory duties and to operate and maintain Loran communication stations.

Instruction: Lectures and practical exercises in the operation of Loran transmitters and receivers.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic communication laboratory (6/75).

CG-1715-0024

CLASS C AN/AYN-1 MAINTENANCE
(AN/AYN-1 Navigation Computer Systems Class C)

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 6-7 weeks (210-231 hours).

Exhibit Dates: 9/76-Present.

Objectives: To provide specialized training in the theory and maintenance of the AN/AYN-1 navigational computer so that the graduate will be able to operate, troubleshoot, test and maintain the equipment.

Instruction: Students will obtain basic instruction in digital computer systems, including introduction to number systems, binary arithmetic, Boolean algebra, logic and machine language programming, and to train them to interpret outputs and troubleshoot the AYN-1 navigational computer system. Lectures and testing (170 hours) and laboratory (40 hours), with about 80 percent of the lecture and 25 percent of the laboratory work on general, real-time computing systems. Concentration is on block-diagram, signal-processing approach, including basic electronics circuits. Study beyond lecture/laboratory work suggested but not required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer fundamentals, 1 in avionics maintenance (9/77).

CG-1715-0025

AN/APN-195 WEATHER RADAR SYSTEMS CLASS C

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 3 weeks (105 hours).

Exhibit Dates: 9/76-Present.

Objectives: Course is designed to teach theory, operation, and maintenance of special radar equipment used by this service agency.

Instruction: Instruction is on weather radar systems, with emphasis on basic theory, power distribution, and transmitting and receiving systems; instruction includes introduction to solid-state theory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in specialized programs in meteorology and/or tower operation (9/77).

CG-1715-0026

AN/APN-171 Radar Altimeter System Class C

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 2 weeks (70 hours).

Exhibit Dates: 9/76–Present.

Objectives: To teach the fundamentals and theory of radar altimeters in order to improve maintenance and repair techniques.

Instruction: Course provides hands-on instruction to accomplish the above objectives.

Credit Recommendation: In the vocational certificate category, 1 semester hour in a specialized program in navigation and/or control tower operation (9/77).

CG-1715-0027

AN/APN-175 Doppler Radar, Navigation

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 4 weeks (140 hours).

Exhibit Dates: 9/76–Present.

Objectives: To train students to service AN/APN-175 Doppler radars.

Instruction: Course will give students an understanding of the Doppler principle in navigation and provide them with practical experience in the operation and troubleshooting of this navigation equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

CG-1715-0028

AN/APN-180 Loran A Navigation System Class C

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 4 weeks (140 hours).

Exhibit Dates: 9/76–Present.

Objectives: Course provides an understanding of the theory and operation of the AN/APN-180 Loran navigational system.

Instruction: Course covers the study of logic circuits, operational amplifiers and waveforms, and the analysis of timing and logic diagrams of the specific Loran navigational system. A review of transistors and integrator circuits is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in engineering technology (9/77).

CG-1715-0029

ARC-160 Communications System
(AN/ARC-160 Communications System)
(Class C Aviation Electronics Technician AN/ARC-160)

Course Number: None.

Location: Aircraft Repair and Supply Center, Elizabeth City, NC.

Length: 3 weeks (93–125 hours).

Exhibit Dates: 12/76–Present.

Objectives: To train students to troubleshoot, adjust, and maintain AN/ARC-160 VHF-FM radio receiver sets.

Instruction: Course builds on previous electronic training. Lecture and testing (76 hours) and laboratory (28 hours) provides review of the theory of logic circuits, number systems, and binary arithmetic, and presents current applications of conventional (CRO, VOR, signal generation and frequency countermeasures) and specialized test equipment for alignment and adjustment. Study beyond lecture/laboratory suggested but not required.

Credit Recommendation: In the vocational certificate category, 2 semester hours in avionics maintenance (9/77).

CG-1715-0030

AN/SPS-66 Maintenance and Repair, Class A

Course Number: NAV12.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (70 hours).

Exhibit Dates: 4/78–Present.

Objectives: To train entry-level technicians to perform the maintenance of the AN/SPS-66 radar set.

Instruction: Topics include set operation and fault indications; system block diagram and functional description of the set and its subassemblies; alignment procedures; isolation of malfunctions to faulty chassis components, wiring problems, or a faulty nonfield repairable subassembly. More than 50 percent of time is spent in laboratory exercises on the system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/78)

CG-1715-0031

Aviation Electronics Technician, Second Class, by Correspondence

Course Number: 203-4.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 10/77–Present.

Objectives: To provide an overview of safety, administration, corrosion, and hardware in addition to basic electronics theory.

Instruction: This correspondence course contains the general safety precautions to be taken when working with mechanical and electrical equipment including basic first aid. Technical information presented includes aircraft corrosion and control, aircraft hardware, and basic electronics theory of amplifiers, oscillators, solid-state components and special circuits. This course presumes knowledge in mathematics, basic a/c and d/c electricity for successful completion. Course has proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in fundaments of electronics (1/79).

CG-1715-0032

Aviation Electronics Technician, First Class, by Correspondence

Course Number: 103-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 6/77–Present.

Objectives: To provide training in basic electronics and administration for the aviation electronics technician, first class.

Instruction: This correspondence course contains the basic theory and characteristics of synchros and their systems, transistors and their circuits, and the operation and construction of solid-state power supplies. Course further details aircraft management systems and offers a mathematics review. There is a proctored end-of-course examination. This course does not have any prerequisites; however, student must have a background in basic a/c and d/c electricity, algebra, and trigonometry. Course has proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in fundamentals of electricity. Recommendation is for theory knowledge only (1/79).

CG-1715-0033

Sonar Technician Second Class by Correspondence

Course Number: 243-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 8/75–Present.

Objectives: Course presents responsibilities of a military technician in the operation and maintenance procedures of specific military equipment.

Instruction: This correspondence course outlines the responsibilities of a sonar technician and studies operations for various tactical situations. Briefly reviews electronics, mathematics, transistors, amplifiers, logic circuits, and maintenance procedures in specific military equipment. There is a brief introduction to synchros, servos and resolvers. A proctored end-of-course examination is required.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics theory (1/79).

CG-1715-0034

Sonar Technician First Class by Correspondence

Course Number: 143-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 10/73–Present.

Objectives: To provide information on the responsibilities and supervision of the operating procedures for specific military equipment and to introduce the basic characteristics of semiconductor devices and circuits.

Instruction: This correspondence course covers operating procedures and definitions of terms for specific military equipment. The introduction to semiconductor devices includes the zener diode, SCR, and junction transistors. Methods of biasing, circuit configurations, and the operation of amplifiers are covered. Characteristics of the unijunction and field-effect transistor along with circuits operations applications are presented. Introduction to pulse and switching circuits, IC's, methods of handling and testing FET's and IC's, and printed circuits are covered. This course includes a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics theory (1/79).

CG-1715-0035

Fire Control TEchnician Second
Class by Correspondence

Course Number: 227-6.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 10/74–Present.

Objectives: To provide an introduction to ordnance administration and a familiarity with fire control problems and procedures.

Instruction: Course provides an explanation of ordnance administration, electrical distribution symbols, fire control problems, procedures for mechanical alignment, and maintenance of specialized military equipment.

Credit Recommendation: Credit is not recommended because of military-specific nature of the course (1/79).

CG-1715-0036

Fire Control Technician First Class
by Correspondence

Course Number: 127-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 8/75–Present.

Objectives: To present solid-state devices and testing procedures, servo systems, gyro devices, antenna principles, and microwave components as they pertain to fire control radar and basic analog and digital computers.

Instruction: This is a correspondence course that does not require a formal laboratory. Course covers theory and testing procedures on solid-state components, generating and shaping circuits and basic digital systems. Operating characteristics of analog and digital computers including electrical, electronic, mechanical, and electromechanical computing devices are covered. Open and close 100p servosystems, gyros, antenna principles, and microwave components are also studied. Course includes a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics theory, 1 in electromechanical theory (1/79).

CG-1715-0037

Electronics Technician Second Class
by Correspondence
(Electronic Technician Second Class by
Correspondence)

Course Number: 221-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 10/77–Present.

Objectives: To teach basic electrical and electronics circuit theory as required to understand the operation of solid-state power supplies, synchros, servomechanisms, and electronic test equipment.

Instruction: This correspondence course includes AC and DC circuit analysis using Ohm's Law and Kirchhoff's Laws. Bipolar, field effect, and unijunction transistors, and silicon-controlled rectifiers are studied as are integrated circuits. Solid-state power supplies, including voltage and current regulators are discussed. The construction and use of volt meters, ammeters, electronic multimeters, and basic oscilloscopes is included as is a limited coverage of synchros and servomechanisms. No formal laboratory experience is required. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics theory (1/79).

CG-1715-0038

Electronics Technician First Class by
Correspondence
(Electronic Technician First Class by
Correspondence)

Course Number: 121-5.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 2/77–Present.

Objectives: To present the theory of operation of vacuum tube, solid-state audio, and RF amplifiers, oscillators, wave shaping, circuits, test equipment, power supplies, basic communications systems, and an introduction to troubleshooting receivers and transmitters.

Instruction: This correspondence course teaches the theory of operation of vacuum tubes and transistors and their applications in audio and RF amplifiers, oscillators and wave shaping circuits. A study of these methods of coupling and of frequency compensation for amplifiers, DC amplifiers, phase inverters, sawtooth generators, blocking oscillators, limiting circuits, multivibrators, clamping circuits. Differentiating and integrating circuits and delay lines and covered. An introduction to the terms and sources of electromagnetic interference ; methods and circuits for suppressing interference in radio and radar equipment are given. The theory of operation and use of various electronics test equipment including VTVM's transistorized voltmeters, digital voltmeters, differential voltmeters, phase-angle meters, bridge measurement instruments frequency meters, curve tracers, oscilloscopes, and probes are covered. Course contains a study of solid-state power supplies including DC-to-DC convertors, series and shunt voltage regulators, constant-current, and current-limited regulators. Also presented are theories of operation of AM, SSB, and FM communications systems; a study of modulation techniques; an introduction to trouble shooting charts to repair transmitters and receivers and to permit the student to gain familiarity with procedures for the alignment of FM receivers. No formal laboratory experience is required. There is a proctored end-of-course examination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronics theory (1/79).

CG-1715-0039

HH-3F Avionicsman by
Correspondence

Course Number: 442-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 4/76–Present.

Objectives: To provide standardized speciality training on the HH-3F helicopter.

Instruction: This correspondence course is designed to enable the student to explain flight preparation, inflight, and postflight duties; describe standardized search and rescue procedures; explain the operation of the mechanical, communication, and navigational systems; and describe the electronics flight aids.

Credit Recommendation: No credit is recommended due to the limited nature of the training (1/79).

CG-1715-0040

HC-130 Avionicsman by
Correspondence

Course Number: 444-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 9/77–Present.

Objectives: To provide a standard special introduction of the avionics systems to an avionicsman training candidate.

Instruction: This correspondence course includes descriptions of the mechanical, communications, navigational, and electronic flight aids systems that pertain to HC-130 aircraft.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/79).

CG-1715-0041

Automated Aids-to-Navigation
Electronics Maintenance

Course Number: ANC-6.

Location: Training Center, Governors Island, NY.

Length: 5 weeks (130-153 hours).

Exhibit Dates: 3/77–Present.

Objectives: To provide practical training in the maintnenace of the lighthouse automation and modernization program (LAMP) monitor and control equipment.

Instruction: The course prepares technicians to operate, maintain, troubleshoot, and repair various subsystems of the automated lighthouse system. Topics include electronics logic, controls, radio links, and power generation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in automated electrical systems (8/78).

CG-1715-0042

Basic Minor Aids To Navigation

Course Number: ANC-3.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (57–80 hours).

Exhibit Dates: 9/74–Present.

Objectives: To provide practical training in the maintenance of 12-volt DC minor-aid systems.

Instruction: Students are instructed in the use of DC electrical meters and familiarized with various lamps which they assemble, adjust, and troubleshoot.

Credit Recommendation: Credit is not recommended because of the limited nature of the course (8/78).

CG-1715-0043

Electronics Fundamentals
(Basic Electronics)

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 14 weeks (476 hours).

Exhibit Dates: 9/77–Present.

Objectives: To teach the basics of electronics maintenance, troubleshooting, and repair fundamentals to personnel with no prior background, in preparation for more specialized courses.

Instruction: A qualitative series of subcourses stressing language component identification, functional description of equipment, and minor troubleshooting procedures of components. Topics covered include power supplies, amplifiers, generators, logic circuits, and single sideband and FM principles.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electronic maintenance (8/78); in the lower-division baccalaureate/associate degree category, 3 semester hours in survey of electronics (8/78).

CG-1715-0044

Radar Fundamentals

Course Number: NAV11.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (50 hours).

Exhibit Dates: 4/78–Present.

Objectives: To train technicians in basic radar theory in preparation for further training on specific radar systems.

Instruction: Primarily a course on radar principles, devices and test equipment; course includes power and frequency checks, timing and synchronization, and block diagrams. Some laboratory experience is included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radar fundamentals (9/78).

CG-1715-0045

AN/SRC-21 Radio Set

Course Number: COMO5.

Location: Training Center, Governors Island, NY.

Length: 3 weeks (81 hours).

Exhibit Dates: 3/77–Present.

Objectives: To train electronics technicians to perform preventive maintenance and repair on the AN/SRC-21 radio set in accordance with its technical manual.

Instruction: Topics covered include system capabilities and description; functional description of system subassemblies; maintenance and alignment procedures; troubleshooting procedures. Over 50 percent of the time is spent in laboratory exercises on the system.

Credit Recommendation: No credit is recommended because of the limited, specialized nature of the course (8/78).

CG-1715-0046

Advanced Minor Aids to Navigation, Class C

Course Number: ANC-2.

Location: Training Center, Governors Island, NY.

Length: 5 weeks (142 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train enlisted personnel in the maintenance of minor navigational aid systems, piloting, and minor-aid construction.

Instruction: Instruction is given in operation, troubleshooting, and maintenance of minor aids, beacons, buoys, and sound signals; bouy tender operations encompassing bouy deck procedures, bouy positioning techniques, piloting and safety; and minor-aid construction.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic electricity, 2 in maritime trades (navigation) (8/78).

CG-1715-0047

Communications Systems, Class 'C'

Course Number: COMO6.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (70 hours).

Exhibit Dates: 3/77–Present.

Objectives: To train electronics technicians to operate, maintain, and repair a radio teletype communications system.

Instruction: Course content includes lectures and laboratory exercises (approximately 50 percent) on the operation and maintenance of the teletype, patch panels, teletype control, teletype converter, radio and MF transmitter. Failure diagnosis and repair procedures are also included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radio teletype communications or electromechanical technology (8/78).

CG-1715-0048

CDFO-5000, Class C

Course Number: LOR-13.

Location: Training Center, Governors Island, NY.

Length: 3 weeks (115–120 hours).

Exhibit Dates: 9/77–Present.

Objectives: To train electronics technicians to perform preventive and corrective maintenance on the CDFO-5000 Loran system in accordance with a designated set of manuals.

Instruction: Training will consist of lectures on the equipment components and functions, practical exercises in operation, alignment and adjustment of the system. The student will troubleshoot instructorinserted faults according to manuals.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/78).

CG-1715-0049

AN/SPS-29 Maintenance and Repair, Class C

Course Number: NAV05.

Location: Training Center, Governors Island, NY.

Length: 3 weeks (111 hours).

Exhibit Dates: 7/78–Present.

Objectives: To train electronics technicians in the maintenance and repair of a specific air-search radar system in accordance with its technical manuals.

Instruction: Course topics include review of radar fundamentals, functional description of the overall system, the pulse generator, modulator, exciter, driver, power amplifier, duplexer, receiver, ranging, monitoring, power supplies, liquid cooler, and compressor dehydrator function. The antenna system is also covered. Testing and troubleshooting procedures using the oscilloscope are emphasized. Over 50 percent of the time is devoted to laboratory work on the system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems (9/78).

CG-1715-0050

Class C Mark 10/IFF Maintenance and Repair

Course Number: NAV06.

Location: Training Center, Governors Island, NY.

Length: 3 weeks (105 hours).

Exhibit Dates: 7/78–Present.

Objectives: To train electronics technicians in the maintenance and repair of a shipboard identification-friend-or-foe (IFF) system in accordance with its technical manuals.

Instruction: Topics covered include IFF principles, a functional description of the system and its subassemblies, and the use of radar test sets and the oscilloscope in aligning and troubleshooting the system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in communications electronics (9/78).

CG-1715-0051

AN/SPS-64(V)-1,2,3,4 Radar

Course Number: NAV09.

Location: Training Center, Governors Island, NY.

Length: 4 weeks (135 hours).

Exhibit Dates: 7/78–Present.

Objectives: To train electronics technicians to maintain and repair a surface-search navigational radar system.

Instruction: Topics covered include a review of basic radar principles and digital logic, system configuration, operator controls, and a functional description of the modulator-receiver-transmitter, antenna, and azimuth range indicator subsystems. Data converters, interface units, and the antenna servomechanisms are also covered. Testing and troubleshooting of the system is stressed. Over 50 percent of allocated time is spent in laboratory exercises.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications systems (9/78)

CG-1715-0052

AN/URC-77 Maintenance and Repair

Course Number: COMO1.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (72 hours).

Exhibit Dates: 7/78–Present.

Objectives: To train technicians to perform preventive and operational maintenance on a representative transceiver in accordance with its manual.

Instruction: When taken in conjunction with AN/SRC-42(V) Radio Set, this course presents a qualitative coverage of radiotelephone procedures, SSB/AM theory, receiver and transmitter specifications, block diagrams and circuits. Signal tracing, testing tuning, and troubleshooting of both the receiver and transmitter of a representative AM/SSB radio set are included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, When taken in conjunction with AN/SRC-42(V) Radio set, 2 semester hours in communications equipment servicing (9/78).

CG-1715-0053

AN/SRC-42(V) Radio Set

Course Number: COMO1.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (72 hours).

Exhibit Dates: 7/78–Present.

Objectives: To train technicians to perform preventive maintenance and repair on a representative AM/SSB radio set according to its manual.

Instruction: When taken in conjunction with AN/URC-77 Maintenance and Repair, this course presents a qualitative coverage of radiotelephone procedures, SSB/AM theory, receiver and transmitter specifications, block diagrams, and circuits. Signal tracing, testing, tuning and troubleshooting of both the receiver and transmitter of a representative AM/SSB radio set are included.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, When taken in conjunction with AN/URC-77 Maintenance and Repair, 2 semester hours in communications equipment servicing (9/78).

CG-1715-0054

AN/SPS-57 Maintenance and Repair, Class A

Course Number: NAV02.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (65 hours).

Exhibit Dates: 3/78–Present.

Objectives: To train electronics technicians to perform preventive and operational maintenance on the AN/SPS-57 radar set based on the technical manual.

Instruction: Topics include functional description of the system and its subunits including its capabilities and specifications, alignment procedures; fault isolation (on a faulty nonfield repairable subassembly) using a multimeter oscilloscope and the manual. More than 50 percent of the time is spent on laboratory exercises on the system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/78).

CG-1715-0055

AN/UPN-23 Loran A Receiver, Class A

Course Number: NAV03.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (56 hours).

Exhibit Dates: 3/78–Present.

Objectives: To train electronics technicians to operate and troubleshoot the AN/UPN-23 Loran-A receiver in accordance with its technical manual.

Instruction: Topics covered include basic Loran-A theory; functional description of the AN/UPN-23; operation, alignment, and troubleshooting procedures for the AN/UPN-23 More than 50 percent of time is spent in laboratory exercises on the system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/78).

CG-1715-0056

Fathometers

Course Number: NAV04.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (70 hours).

Exhibit Dates: 7/78–Present.

Objectives: To train entry-level electronic technicians to perform the preventive maintenance and repair of fathometers AN/SQN-13, AN/UQN-1H, and AN/UQN-4 in accordance with their technical manuals.

Instruction: Topics covered include basic principles of sonar; specifications, capabilities, and functional description of each of the cited fathometers; alignment of a fathometer; isolation of equipment malfunctions using appropriate test equipment and the technical manual. More than 50 percent of the time is spent in laboratory exercises on the system.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (9/78).

CG-1715-0057

CCI-611 and Motorola Triton VHF-FM Transceivers

Course Number: COMO2.

Location: Training Center, Governors Island, NY.

Length: 2 weeks (70 hours).

Exhibit Dates: 3/78–Present.

Objectives: To train technicians to perform preventive maintenance and repair on the CCI-611 and Motorola Triton VHF-FM transceiver.

Instruction: Course provides a qualitative coverage of the basic FM transceiver, its block diagram, and a functional description of its subassemblies. Practical troubleshooting methods, component repair, alignment and preventive maintenance procedures are stressed.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in communications equipment servicing (9/78)

CG-1715-0058

AN/URT-23 and AN/URA-38

(AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group)

Course Number: COMO1.

Location: Training Center, Governors Island, NY.

Length: 3 weeks (75 hours).

Exhibit Dates: 3/78–Present.

Objectives: To train electronics technicians in the maintenance and repair of the AN/URT-23 and AN/URA-38 transmitter/antenna system based on the manuals for this system.

Instruction: Topics covered include: nomenclature and functional description of all components of the transmitter and antenna servo system; system operation, block diagram and signal flow; testing alignment procedures; troubleshooting and repair procedures. Approximately 50 percent of instructional time is spent in laboratory work on the system.

Credit Recommendation: No credit because of the limited specialized nature of the course (8/78).

CG-1715-0059

Loran-C Journeyman

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 4–5 weeks (160 hours).

Exhibit Dates: 1/76–Present.

Objectives: To prepare electronic technicians in the principles of operation of Loran equipment with specific emphasis on maintenance, repair, and operation of the AN/FPN 39,42, and 44.

Instruction: Course is a combination course consisting of LORO 5, 6, and 7: Loran-C system, Loran replacement equipment, and apprentice FPN-39 or FPN 44/45 transmitter. Instruction emphasizes operation and maintenance, trouble identification, and preventive maintenance of specialized equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/78).

CG-1715-0060

Loran-A Apprentice, Class A

Course Number: None.

Location: Training Center, Governors Island, NY.

Length: 8 weeks (276 hours).

Exhibit Dates: 6/76–Present.

Objectives: To instruct technicians in the principles of operation of Loran-A systems and to train them in the preventive and corrective maintenance of Loran-A timing, transmitting, and replacement equipment.

Instruction: Course is a combination of Coast Guard courses numbered LORO1, LORO2, LORO3, and LORO4 entitled Loran-A systems; FPN-30 Timer; Transmitters, Amplifiers and Switching Equipment; and Loran-A Replacement Equipment (LARE). Course offers principles of operation operation of each unit and their integration into the Loran-A system. Students are taught to troubleshoot system malfunctions and to repair or replace defective circuit boards or components as well as to perform preventive maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in communications equipment servicing (8/78)

CG-1715-0061

Fundamentals of Electronics by Correspondence

Course Number: 472-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 8/78–Present.

Objectives: To provide a basic coverage of mathematics and electrical circuit theory from which the student is able to progress into a limited study of semiconductor devices and fundamental electronic circuits.

Instruction: This correspondence course presents basic mathematics from addition and subtraction to algebra and elementary trigonometry. AC and DC circuits are covered to a limited degree from Ohm's Law to polyphase circuits and transformers. Basic electronic circuits such as rectifiers, transistor amplifiers, oscillators, and wave shapers are presented to a limited degree. No formal laboratory experience is required. Course has a proctored end-of-course examination.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics theory (1/79).

CG-1715-0062

Junior Officer Electronic Indoctrination by Correspondence

Course Number: 405-3.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 12/73–Present.

Objectives: To train the junior officer in the duties of an electronic material officer.

Instruction: This correspondence course provides a brief introduction to wave propagation, electronic aids to navigation, and an introduction to electronic administration for a shipboard electronic department.

Credit Recommendation: Credit is not recommended due to the military-specific nature of the course (1/79).

CG-1715-0063

Telephone Technician Second Class by Correspondence

Course Number: 245-4.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 5/78–Present.
Objectives: To teach the theory and operating principles of telephone systems including station installation and maintenance, central office equipment, outside equipment, carrier equipment, intercom systems, and teletypewriters.
Instruction: This correspondence course offers an introduction to the basic principles of step-by-step, cross bar, and electronic switching systems. Student will become familiar with procedures for the installation and repair of telephone cables, inside and outside equipment, carrier equipment, public address and intercom systems, and teletypewriters. Course includes a proctored end-of-course examination.
Credit Recommendation: In the vocational certificate category, 3 semester hours in telephony theory (1/79).

CG-1715-0064

Closed Circuit Television Systems by Correspondence

Course Number: 408-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 1/76–Present.
Objectives: To teach the operation, maintenance and repair of closed circuit television units including monitor/receivers, cameras, and video recorders.
Instruction: This correspondence course presents an introduction to the theory of operation and maintenance of television equipment. Course includes basic fundamentals of the television camera and video recorder, a study of television standards, the composite video signal, and the transmitter and receiver circuits. Student will observe malfunctions using picture tube indications and analyze problems to specific components by use of a television schematic. Course has a proctored end-of-course examination; no formal laboratory experiences are required.
Credit Recommendation: In the vocational certificate category, 2 semester hours in radio/television theory (1/79).

CG-1715-0065

Radar Theory and Maintenance by Correspondence

Course Number: 473-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 4/77–Present.
Objectives: To provide introduction to the principles of microwave techniques.
Instruction: This correspondence course presents the principles of microwave propagation and antennas, waveguides, cavity resonators, velocity-modulated tubes, magnetrons and traveling wave tubes. Course also includes an introduction to radar circuits, duplexers, TR and ATR tubes, ferrites, echo boxes, directional couplers and the measurement of power and standing-wave ratios. There is a proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (1/79).

CG-1715-0066

Advanced Electrical/Electronics

Course Number: EM-17.
Location: Reserve Training Center, Yorktown, VA.
Length: 12 weeks (420 hours).
Exhibit Dates: 3/78–Present.
Objectives: To train qualified enlisted electrician's mates in the theory, analysis, and repair of solid state electrical/electronic shipboard control systems.
Instruction: Lectures and practical exercises in integrated circuit operational amplifiers, magnetic amplifiers and uses of modern electronic test instruments. Review of mathematics, beginning algebra, and theory of AC and DC electrical circuits.
Credit Recommendation: In the vocational certificate category, 1 semester hour in basic mathematics (12/79); in the lower-division baccalaureate/associate degree category, 4 semester hours in solid state amplifier and control circuits, 3 in logic devices and control modules, 2 in introduction to AC and DC electricity (12/79).

CG-1717-0001

Senior Petty Officer Leadership and Management

Course Number: None.
Location: Reserve Training Center, Yorktown, VA; Training Center, Petaluma, CA.
Length: 3 weeks (107 hours).
Exhibit Dates: 5/76–Present.
Objectives: Student will have a basic theoretical understanding and practical working knowledge of basic principles of management, leadership, and human resource development.
Instruction: Topics include group dynamics, motivation theory, interpersonal relations through Transactional Analysis, organizational communications, situational leadership and work planning techniques. Instructional methods include lectures, case studies, role playing, simulation and discussions.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management or leadership development and human relations (12/77).

CG-1717-0002

Reserve Petty Officer Leadership and Management

Course Number: None.
Location: Reserve Training Center, Yorktown, VA; Training Center, Alameda, CA; Training Center, Petaluma, CA.
Length: 2 weeks (70 hours).
Exhibit Dates: 12/76–Present.
Objectives: Student will have a theoretical understanding and practical working knowledge of principles of management, leadership and human resources development.
Instruction: Topics include group dynamics, motivation theory, interpersonal relations through Transactional Analysis, organizational communications, situational leadership and work planning techniques. Instructional methods include lectures, case studies, role playing, simulation and discussion.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management or leadership development and human relations (12/77).

CG-1717-0003

Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs)
(Junior Officer Leadership and Management)

Course Number: None.
Location: Reserve Training Center, Yorktown, VA; Training Center, Petaluma, CA.
Length: 2 weeks (70 hours).
Exhibit Dates: 12/76–Present.
Objectives: The student will have a theoretical understanding and practical working knowledge of principles of management, leadership, and human resources development.
Instruction: Topics include group dynamics, motivation theory, interpersonal relations through Transactional Analysis, organizational communications, situational leadership and work planning techniques. Instructional methods include lectures, case studies, role playing, simulation and discussion.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management or leadership development and human relations (12/77).

CG-1717-0004

Reserve Officer, Chief Leadership and Management

Course Number: None.
Location: Reserve Training Center, Yorktown, VA; Training Center, Alameda, CA; Training Center, Petaluma, CA.
Length: 2 weeks (70 hours).
Exhibit Dates: 12/76–Present.
Objectives: The student will have a basic theoretical understanding and practical working knowledge of the basic principles of management, leadership, and human resource development.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to management or leadership development and human relations (12/77).

CG-1722-0001

Fireman by Correspondence

Course Number: 450-7.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 11/74–Present.
Objectives: To provide basic nonresident training for fireman apprentices in the area of main propulsion machinery, damage control, auxiliary machinery and hand tools.
Instruction: The course presents names and functions of the various types of main propulsion machinery: the student learns how to use hand tools. Auxiliary machinery used by the Coast Guard in the performance of its duties is identified and its functions explained. Course includes proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in marine auxiliary

equipment, 1 in introduction to marine engines (5/79).

CG-1722-0002

Quartermaster Second Class by Correspondence

Course Number: 237-5.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 5/75–Present.
Objectives: To provide training for prospective quartermasters second class in navigation and related topics needed to attain that rate.
Instruction: This nonresident course includes communications, degaussing, steering, charts, rules of the road, basic weather, honors and ceremonies. Course includes proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in coastwise navigation and piloting, 1 in applied meteorology (5/79).

CG-1722-0003

Quartermaster Third Class by Correspondence

Course Number: 337-7.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 10/73–Present.
Objectives: To provide training for prospective quartermasters, third class, in basic navigation and related topics needed to attain that rate.
Instruction: This is a nonresident course covering basic navigation, the magnetic compass, familiarization with navigation rules, bridge communications, nautical charts and publications, aids to navigation, and tides and currents. Course includes proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in coastwise navigation (5/79).

CG-1722-0004

Aids to Navigation Construction

Course Number: None.
Location: Training Center, Governors Island, NY.
Length: 2 weeks (72 hours).
Exhibit Dates: 7/78–Present.
Objectives: To teach Coast Guard personnel to fabricate and construct aids to navigation structures.
Instruction: Course is designed to develop knowledge and skills in crane operation as follows: loading, unloading, pile driving, servicing of crane equipment. Also includes soil analysis, pneumatic equipment and information on wire and synthetic lines. Course concludes with proctored examination.
Credit Recommendation: In the vocational certificate category, 2 semester hours in the construction field (8/78).

CG-1723-0001

Machinery Technician First Class by Correspondence

Course Number: 132-2.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 5/78–Present.
Objectives: To provide nonresident training in the areas of engine efficiency, clutches and reduction gears, fuel systems, lathe operation, and bench work.
Instruction: Upon completion of the course the student will be able to describe lathe operation and associated bench work. The trainee should understand how clutches and reduction gear are used in marine engine work and will explain the Detroit diesel fuel systems used by the Coast Guard. Description of lathe operations and bench work associated with lathe operations are provided and trainee will practice these descriptive operations at duty station. Course also explains the diesel fuel system pump and injectors; describes clutches and reduction gears and their relation to marine engine efficiency. There is a proctored end-of-course examination.
Credit Recommendation: In the vocational certificate category, 2 semester hours in basic machine shop, 2 in diesel fuel systems (5/79).

CG-1723-0002

Machinery Technician Second Class by Correspondence

Course Number: 232-2.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 9/77–Present.
Objectives: To provide training in the area of hydraulic systems, maintenance of internal combustion engines, gas turbine engines, refrigeration, and air conditioning.
Instruction: This course consists of seventeen lessons and proctored end-of-course examination. Each lesson has one or more reading assignments followed by a series of self-scoring questions. Student will be able to describe, troubleshoot, and repair most hydraulic systems components, explain the performance of proper maintenance repairs on internal combustion engines, describe turbine engines, clutching, and free turbine operation procedures, and explain proper hot section inspection and lockwiring of components.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in basic hydraulics, 2 in basic diesel, 2 in basic gas turbine, and 2 in basic refrigeration and air conditioning (5/79)

CG-1723-0003

Machinery Technician Third Class by Correspondence

Course Number: 332-1.
Location: Coast Guard Institute, Oklahoma City, OK.
Length: Maximum 52 weeks (Oklahoma City, OK hours).
Exhibit Dates: 11/76–Present.
Objectives: To enable student to identify and explain gas turbine fundamentals and characteristics including lubricating oil systems, cooling systems, starting systems, and fuel systems.
Instruction: The student will study gas turbine fundamentals, beginning and advanced engine systems. Course also includes review of basic principles of electricity and how it is used aboard ship. Student learns basic principles of refrigeration and air compressor systems as they exist in a shipboard environment. The operation of distilling plants and their boilers as well as the general operation of firerooms aboard ship are reviewed. There is a proctored end-of-course examination.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine fundamentals, 2 in marine auxiliary equipment, 2 in shipboard electricity (5/79)

CG-1723-0004

Class A Machinery Technician

Course Number: None.
Location: Reserve Training Center, Yorktown, VA.
Length: 16 weeks (555 hours).
Exhibit Dates: 5/79–Present.
Objectives: To train enlisted personnel to perform as junior petty officers at the entry level in the machinery technical rating on Coast Guard cutters and stations.
Instruction: Lectures and practical exercises on the use of precision hand and machine tools, theory and practice in basic hydraulics, the internal combustion engine, diesel engine, clutches/shifting mechanisms, basic refrigeration and welding.
Credit Recommendation: In the vocational certificate category, 4 semester hours in machine shop practices, 3 in basic refrigeration (12/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in internal combustion engines (12/79).

CG-1728-0001

Port Security/Law Enforcement Officer

Course Number: None.
Location: Reserve Training Center, Yorktown, VA.
Length: 5–6 weeks (146 hours).
Exhibit Dates: 1/66–12/73.
Objectives: To train officers in the fundamentals and techniques of criminal justice, police administration, and port security.
Instruction: General law; police administration; source of law; law enforcement; jurisdiction, evidence, arrest; investigations and reports; port security laws; public relations; communications; riot control; arson, sabotage, and countersabotage; weapons training; first aid; firefighting; pier construction; waterfront security; water pollution; port security; fingerprinting; cargo control; dangerous cargo.
Credit Recommendation: In the vocational certificate category, 3 semester hours in criminal justice (11/73).

CG-1728-0002

Port Security/Law Enforcement Enlisted

Course Number: None.
Location: Reserve Training Center, Yorktown, VA.
Length: 5–6 weeks (154 hours).
Exhibit Dates: 1/66–12/73.
Objectives: To train students in criminal justice techniques and port security operations.
Instruction: General law; source of law; law enforcement; jurisdiction, evidence, arrest; investigations and reports; port security, operations, laws; public relations; communications; riot control; arson, sabotage; weapons; first aid; firefighting; pier construction; waterfront security; water pollution; port security; fingerprinting; cargo control; dangerous cargo.

Credit Recommendation: In the vocational certificate category, 3 semester hours in criminal justice (11/73).

CG-1728-0003

MARITIME LAW ENFORCEMENT

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 5 weeks (150-200 hours).

Exhibit Dates: 12/77-Present.

Objectives: To train commissioned and non-commissioned officers as federal law enforcement officials.

Instruction: Lectures and practical exercises in the duties and skills necessary to act as an agent of the federal government in legal and court situations. Topics include a brief history of the U.S. government, constitutional, international and criminal law, military law, court procedures, prosecution, laws of evidence, search and seizure, surveillance, weapons training, authority and interrogation procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in law enforcement, 1 in political science (12/79).

CG-1728-0004

PORT SECURITY SCHOOL

Course Number: None; None.

Location: Reserve Training Center, Yorktown, VA.

Length: 6 weeks (204 hours).

Exhibit Dates: 3/79-Present.

Objectives: To train students in criminal justice techniques and port security operations.

Instruction: Lectures and practical exercises in general law, law enforcement, jurisdiction, evidence, arrest, investigation and reports, port security operation, public relations and communications, riot control, arson, water pollution, cargo control, dangerous cargo and firefighting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in law enforcement, 2 in firefighting (12/79).

CG-1729-0001

COMMISSARYMAN, CLASS A

Course Number: None.

Location: Coast Guard Training Center, Groton, CT.

Length: 16 weeks (686 hours).

Exhibit Dates: 6/64-10/72.

Objectives: To train cooks and bakers for mess operations.

Instruction: Principles and techniques of cooking and baking, with some instruction in purchasing and menu planning.

Credit Recommendation: In the vocational certificate category, 3 semester hours in hotel, restaurant, and institutional curricula (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel, restaurant, and institutional curricula (12/73); in the upper-division baccalaureate category, 3 semester hours in hotel, restaurant, and institutional curricula (12/73).

CG-1729-0002

SUBSISTENCE SPECIALIST

Course Number: None.

Location: Coast Guard Training Center, Petaluma, CA.

Length: 18 weeks (909 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train subsistence specialists to operate and manage general messes, officer messes, and private messes.

Instruction: Training covers all subject matter found in introductory food production and volume food service management courses.

Credit Recommendation: In the vocational certificate category, 6 semester hours in hotel, restaurant, and institutional management (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 6 semester hours in hotel, restaurant, and institutional management (12/73).

CG-1731-0001

1. OUTBOARD ENGINES OPERATION AND MAINTENANCE.
2. OUTBOARD MOTORS, MOTOR MAINTENANCE AND OVERHAUL, CLASS C

Course Number: *Version 1:* MK-23. *Version 2:* None.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (60-70 hours).

Exhibit Dates: *Version 1:* 10/79-Present. *Version 2:* 7/65-9/79.

Objectives: To train enlisted personnel to operate, maintain, overhaul, and perform malfunction analysis of outboard and inboard/outboard engines.

Instruction: *Version 1:* Lectures and practical exercises in the disassembly, reassembly, and performance testing of two and four cylinder outboard marine engines and inboard/outboard stern drive units. *Version 2:* Lectures and practical exercises in the disassembly, reassembly, and testing of the two- and four-cylinder inboard/outboard marine engines.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in small engine maintenance and repair (10/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in small engine laboratory (10/79). *Version 2:* In the vocational certificate category, 1 semester hour in small engine repair (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in small engine laboratory (6/75).

CG-1731-0002

GAS TURBINE BY CORRESPONDENCE

Course Number: 453-1.

Location: Coast Guard Institute, Oklahoma City, OK.

Length: Maximum 52 weeks (Oklahoma City, OK hours).

Exhibit Dates: 5/78-Present.

Objectives: This nonresident course provides basic understanding of gas turbine fundamentals.

Instruction: The course consists of five lessons and a proctored end-of-course examination. Each lesson has onee or more reading assignment followed by a series of questions. After completing the course the student will be able to explain gas turbine components and their functions; explain safety requirements for gas turbine; and perform some preventive and corrective maintenance on gas turbine engines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in gas turbine engine familiarization and fundamentals (5/79).

CG-2202-0001

OFFICER CANDIDATE SCHOOL (SEAMANSHIP, ORIENTATION, OPERATIONS & MILITARY INDOCTRINATION)

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 15 weeks (420 hours).

Exhibit Dates: 7/79-Present.

Objectives: To provide officer candidates with the training prerequisite to active duty as a commissioned officer in the U.S. Coast Guard.

Instruction: Lectures and practical exercises covering Coast Guard orientation, career information, administrative procedures, leadership, seamanship electronic navigation, physical education, small arms, military law and safety.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in naval science, 3 in human relations/management (12/79).

CG-2202-0002

DIRECT COMMISSION CLASS

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 8/79-Present.

Objectives: To provide candidates with a basic orientation to active duty or commissioned office in the Coast Guard.

Instruction: Topics include history of the Coast Guard, mission and scope of the Coast Guard law enforcement program, jurisdiction, service etiquette, officer career information, leadership and administrative procedure.

Credit Recommendation: Credit is not recommended due to the limited, specialized nature of the course (12/79).

CG-2205-0001

AUTOMATED AIDS TO NAVIGATION MAINTENANCE
(Major Aids to Navigation)

Course Number: ANC-1.

Location: *Version 1:* Training Center, Governors Island, NY. *Version 2:* Training Center, Governors Island, NY. *Version 3:* Training Center, Groton, CT.

Length: *Version 1:* 7 weeks (196 hours). *Version 2:* 6 weeks (165 hours). *Version 3:* 6 weeks (221 hours).

Exhibit Dates: *Version 1:* 1/77-Present. *Version 2:* 2/69-12/76. *Version 3:* 7/65-1/69.

Objectives: To train enlisted personnel to operate major light stations, fog signal stations, and lightships.

Instruction: *Version 1:* Covers minor and major navigational aids. *Version 2:* Lectures and practical exercises in basic electricity, minor aid power, major aids, visual signaling, sound signals, minor lights, and introduction to outboard motors. *Version 3:* Lectures and practical exercises in aids to navigation, including function, operation, preventive maintenance, testing, and troubleshooting of major navigational aids equipment, test equipment, problems and hazards training, first aid, and installation, operation and maintenance of major aid apparatus and special testing equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic electricity, 4 in maritime trades (light station operator)(8/78). *Version 2:* In the vocational certificate category, 2 semester hours in basic electricity, 2 in maritime trades (light station operator) (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in maritime trades (light station operator) and on the basis of institutional evaluation, 2 in basic electricity (6/75). *Version 3:* In the vocational certificate category, 5 semester hours in marine technology or oceanography, 2 as an elective in automotive technology, 2 as an elective in electrical technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in marine technology or oceanography, 2 as an elective in automotive technology, 1 as an elective in electrical technology (5/74).

CG-2205-0002

MINOR AIDS TO NAVIGATION

Course Number: None.

Location: *Version 1:* Training Center, Governors Island, NY. *Version 2:* Training Center, Groton, CT.

Length: *Version 1:* 6 weeks (163 hours). *Version 2:* 6 weeks (221 hours).

Exhibit Dates: *Version 1:* 1/69–Present. *Version 2:* 7/65–12/68.

Objectives: To train enlisted personnel for duty aboard tenders and at light attendant stations.

Instruction: Lectures in piloting and buoy positioning; charts; basic electricity; AC and DC theory and equipment; engine operation and maintenance, including theory, fuels, cooling systems, electrical and mechanical systems, piping and exhaust systems, and engineering safety; minor light and fog equipment; and buoys, minor structures, burning equipment, and power tools operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in maritime trade (minor aids to navigation maintenance) (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in maritime trade (minor aids to navigation maintenance) (6/75). *Version 2:* In the vocational certificate category, 2 semester hours as an elective in electrical technology, 2 as an elective in automotive technology, and 5 in marine technology or oceanography (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in electrical technology, 1 as an elective in automotive technology, and 3 in marine technology or oceanography (5/74).

CG-2205-0003

AIDS TO NAVIGATION SCHOOL (SHORT COURSE FOR OFFICERS)

Course Number: None.

Location: Training Station, Groton, CT.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/54–12/68.

Objectives: To train officers to operate standard aids to navigation.

Instruction: Lectures in aids to navigation significance, battery-operated lights, acetylene-operated lights, light station management, radiobeacon operation, diesel generators operation and maintenance, emergency safety measures, fog signals, buoy handling, repair shop management, field inspection, and light attendant duties.

Credit Recommendation: In the vocational certificate category, 2 semester hours in navigational aids (5/74).

CG-2205-0004

OFFICER CANDIDATE SCHOOL

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 17 weeks (480 hours).

Exhibit Dates: 2/61–12/68.

Objectives: To provide candidates with the training prerequisite to active duty as commissioned officers in the Coast Guard.

Instruction: Combat information center; Coast Guard orientation; communications; damage control—atomic, biological, and chemical warfare; gunnery; navigation; seamanship; training vessel; drill; physical education; military law; safety and first aid.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced naval science (12/68).

CG-2205-0005

GENERAL SERVICE INDOCTRINATION SCHOOL

Course Number: None.

Location: Coast Guard Academy, New London, CT; Reserve Training Center, Yorktown, VA.

Length: 12 weeks (340 hours).

Exhibit Dates: 2/61–12/68.

Objectives: To train officers commissioned from the U.S. Merchant Marine in the fundamentals necessary for performance of duty as commissioned officers in the Coast Guard.

Instruction: Coast Guard orientation; communications; rules of the road; navigation; combat information center; gunnery; antisubmarine warfare; damage control, including atomic, biological, and chemical warfare; Coast Guard engineering.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced naval science (12/68).

CG-2205-0006

RADIOBEACON OPERATION

Course Number: None.

Location: Aids to Navigation School, Governors Island, NY.

Length: 2 weeks (58 hours).

Exhibit Dates: 7/65–12/68.

Objectives: To train personnel in the operation, watchstanding, reporting, maintenance and minor repair of radiobeacon equipment.

Instruction: Lectures and practical exercises in the operation, monitoring, maintenance, and minor repair of an unspecified radiobeacon.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

CG-2205-0007

SMALL ARMS INSTRUCTOR

Course Number: None.

Location: Reserve Training Center, Yorktown, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/73–Present.

Objectives: To train enlisted personnel to teach pistol and rifle marksmanship and to prepare them to be range officers and coaches, with emphasis on the caliber .45 automatic pistol and M-16 rifle.

Instruction: Lectures and practical exercises in teaching hand gun and rifle marksmanship and the management of firing ranges.

Credit Recommendation: Credit is not recommended because of the military nature of the course (6/75).

CG-2205-0008

OFFICERS ADVANCED AIDS TO NAVIGATION

(Aids to Navigation Officer Advanced)

Course Number: None.

Location: Aids to Navigation School, Governors Island, NY.

Length: 2 weeks (60–64 hours).

Exhibit Dates: 4/66–Present.

Objectives: To provide personnel with advanced training in signals engineering and administration.

Instruction: Lectures and practical exercises in signals arrangements, system evaluation, administration, and legal aspects of aids-to-navigation.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/78).

CG-2205-0009

OFFICERS BASIC AIDS TO NAVIGATION

(Officers Basic Aids to Navigation, Class O)

(Aids to Navigation Officer Basic)

Course Number: ANC-4.

Location: Aids to Navigation School, Governors Island, NY; Coast Guard Training Center, Groton, CT.

Length: *Version 1:* 3 weeks (86 hours). *Version 2:* 4 weeks (120–137 hours).

Exhibit Dates: *Version 1:* 5/75–Present. *Version 2:* 4/66–4/75.

Objectives: Training in the administration, evaluation, maintenance, and operation of the federal system of Aids to Navigation.

Instruction: *Version 1:* Students are familiarized with batteries, various lamps, bouys, reflections, and minor navigational aid structures. Students learn to use the devices as aids to navigation. *Version 2:* Lectures and practical exercises in minor aids, minor aid power, major aids, major aid power, sound and visual signaling, major structures, the day mark, the buoy tender, safety, and administration.

Credit Recommendation: *Version 1:* No credit is recommended due to the diversity of the training (8/78). *Version 2:* In the vocational certificate category, 1 semester hour in maritime trades (navigation aid) (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in maritime trades (navigation aids) (6/75).

CG-2205-0011

BASIC MILITARY TRAINING

(Recruit Training)

Course Number: None.

Location: Training Center, Cape May, NJ; Training Center, Alameda, CA.

Length: 8 weeks (240–320 hours).

Exhibit Dates: 12/79–Present.

Objectives: To provide training for personnel with no previous military experience.

Instruction: Course acquaints students with missions and operations of the Coast Guard and opportunities for professional growth; teaches basic seamanship skills; motivates the individual to regard unit goals as her/his own and to develop a sense of pride, self-discipline, self-confidence and a sense of the need for teamwork to accomplish a mission. This is achieved by formal classroom training as well as by creating a living and working environment with group living, standing watches, work detail assignments, discipline standards, and such routine activities as personnel and barracks inspections and marching. Course includes drug awareness, first aid, safety and survival. Also included is counseling and classification, civil rights, hygiene, physical fitness, career information, boat seamanship and deck seamanship.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in beginning swimming, 1 in personal fitness/conditioning, 2 in first aid and safety (11/79).

DD

DD-0326-0001

Armed Forces Staff College

Course Number: None.

Location: Armed Forces Staff College, Norfolk, VA.

Length: *Version 1:* 21 weeks (634 hours). *Version 2:* 21 weeks (548–642 hours).

Exhibit Dates: *Version 1:* 6/73–Present. *Version 2:* 7/54–5/73.

Objectives: To train officers in joint and combined military organization, planning, and operations, and in related aspects of national and international security.

Instruction: Lectures, readings, and student research and discussions in joint and combined military organization, planning, and operations, and in related aspects of national and international security.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in principles and problems of management, 3 in international relations (Current Problems in World Politics), 3 in contemporary U.S. military history and national security policy, 3 in communicative arts (8/74); in the graduate degree category, 3 semester hours in management and systems analysis (8/74). NOTE: Credit recommendation is based on an on-site evaluation. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and regulations of the admitting institution on transfer credit. *Version 2:* In the upper-division baccalaureate category, 6 semester hours in business administration, 6 in political science—including international relations—3 in recent military history (8/74).

DD-0327-0001

Defense Security Assistance Management Overseas
(Core/Overseas)

Course Number: SAM-0.

Location: Defense Institute of Security Assistance, Wright-Patterson AFB, OH.

Length: 4–5 weeks (114 hours).

Exhibit Dates: 10/78–Present.

Objectives: To provide Department of Defense overseas representatives with the policies and procedures governing their conduct of operation overseas. Security assistance management is discussed from the national policy level through implementation by responsible agencies.

Instruction: This course covers the management of military sales to foreign countries as it relates to planning programming budget systems (PPBS), foreign policy, legal status overseas, physical security, cross cultural communications, government contracting, export controls and government procurement management. The method of instruction includes lecture, real-life case studies, simulator exercises and interaction with practitioners in the field.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in international business (11/78)

DD-0504-0001

Information Specialist (Journalist)
(Basic Military Journalist)

Course Number: ABA79130-1(USAF); 570-71Q20; A-570-0011(USN); 28-R-701.1.

Location: Defense Information School, Ft. Benjamin Harrison, IN; Defense Information School, Ft. Slocum, NY.

Length: *Version 1:* 10 weeks (396 hours). *Version 2:* 9–10 weeks (344–358 hours). *Version 3:* 10 weeks (396–440 hours).

Exhibit Dates: *Version 1:* 8/79–Present. *Version 2:* 4/72–7/79. *Version 3:* 12/64–3/72.

Objectives: To teach selected enlisted personnel the principles, techniques, and skills required in public information, service information, and community relations.

Instruction: *All Versions:* Lectures and practical experiences in print journalism, including interviewing techniques, news and feature writing, editing, newspaper layout and makeup; photojournalism, including the taking, processing, and printing of photographs; radio and television writing; speech; international relations and government; public affairs. Print media, broadcast media, and photography are emphasized. *Version 1:* Print media, public affairs photojournalism and broadcast journalism are emphasized. *Version 2:* Print media skills, public affairs and photojournalism emphasized. *Version 3:* Print media, broadcast media and photography are emphasized.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in news writing and reporting (print), 2 in news writing and reporting (electronics), 2 in photojournalism and 2 in layout and design (2/80). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in mass communications and 3 in introduction to print and photojournalism (2/78). *Version 3:* In the vocational certificate category, 3 semester hours in mass media (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in mass media (12/73); in the upper-division baccalaureate category, 3 semester hours in journalism, and credit in social sciences and oral communication on the basis of institutional evaluation (12/68).

DD-0504-0002

Advanced Information Specialist

Course Number: *Version 1:* 570-F1. *Version 2:* 5AAA79170 (USAF); A-570-0012 (USN); 570-F1; 570-F1; A-570-0012; 5AAA79170. *Version 3:* 28-R-F1.

Location: *Version 1:* Defense Information School, Ft. Benjamin Harrison, IN. *Version 2:* Defense Information School, Ft. Benjamin Harrison, IN. *Version 3:* Defense Information School, Ft. Benjamin Harrison, IN; Defense Information School, Ft. Slocum, NY.

Length: *Version 1:* 3 weeks (106 hours). *Version 2:* 3 weeks (98–106 hours). *Version 3:* 8 weeks (352 hours).

Exhibit Dates: *Version 1:* 10/79–Present. *Version 2:* 9/72–9/79. *Version 3:* 3/55–8/72.

Objectives: To provide advanced training in the planning, supervision, and coordination of information activities for selected noncommissioned and petty officers who will perform duties as assistants to the officer-in-charge of an information office/section or a radio and television facility.

Instruction: *All Versions:* including news, headline, editorial, and feature writing; page layout and makeup; radio and television, including news and feature writing, announcing, studio operations, television camera techniques, control room operation, newscast preparation and production, blocking scripts, and television feature production. *Version 1:* Emphasis is placed on applied management and supervisory skills.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hour in media management (2/80). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in media management (journalism) (8/78). *Version 3:* In the vocational certificate category, 3 semester hours in mass media (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in mass media (12/73); in the upper-division baccalaureate category, 3 semester hours in journalism, and credit in social sciences on the basis of institutional evaluation (12/68).

Related Occupation Codes: 71Q; 71Q.

DD-0504-0003

Newspaper Editor

Course Number: 570-F2; A-570-0013; 5AZA79150.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: 3 weeks (118–132 hours).

Exhibit Dates: 7/68–Present.

Objectives: To provide additional print journalism instruction to personnel assigned as editors of military newspapers and magazines.

Instruction: Beginning in 1976, course becomes a highly individualized, self-paced program consisting of pretest, group-paced, self-paced, final performance test and newspaper improvement project. Subject areas include photojournalism, print journalism and public affairs. Lectures and practical experience cover all phases of newspaper production, culminating with a 4-page service newspaper or, beginning in 1976, a tabloid size page of a hypothetical military newspaper. Workshop includes communications law, Department of Defense policy on release of information, newsgathering, writing, editing, style, deadlines, photo selection and editing, and layout and page makeup.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in newspaper production (journalsim) (2/78).

DD-0504-0004

Information Enlisted
(Information Specialist)

Course Number: 28-E-1; 28-R-701.1; 28-R-703.1; 28-R-703.2.

Location: Defense Information School, Ft. Benjamin Harrison, IN; Defense Information School, Ft. Slocum, NY.

Length: 8–10 weeks (278–345 hours).

Exhibit Dates: 11/56–12/68.

Objectives: To provide enlisted personnel with a working knowledge in the selection, evaluation, preparation, and dissemination of Army information through available media of communications.

Instruction: Policy and plans, including public relations philosophy and practice, and information aspects of unusual incidents, stressing the case-study approach; applied journalism, with performance skills in all tasks required to publish a service newspaper; research communications, stressing preparation of the information specialist for public speaking, speech writing, briefings, and group discussions; radio and television, including training in writing, announcing, and production staff functions; internal relations and government, stressing the U.S. international position in terms of world patterns.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in mass media (12/73); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 in oral communications, and credit in journalism on the basis of institutional evaluation (12/68).

DD-0504-0005

Troop Information and Education Enlisted

Course Number: 28-E-1.

Location: Defense Information School, Ft. Slocum, NY.

Length: 8 weeks (352 hours).

Exhibit Dates: 4/54–12/68.

Objectives: To train enlisted personnel to assist in the organization, operation, and supervision of troop information and education programs.

Instruction: Policies and operational procedures; speech preparation and presentation; discussion-leading techniques; organization of group study activities; testing procedures; advisement principles; practical exercises in newsgathering and newswriting; troop information radio broadcasting; comprehensive study of citizenship, history, government, and international affairs; fundamentals of typewriting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in social studies, 1 in mass communications (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in social studies, 1 in mass communications (12/73); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 in oral communications (12/68).

DD-0504-0006

Troop Information and Education Officer

Course Number: 28-O-6.

Location: Defense Information School, Ft. Slocum, NY.

Length: 8 weeks (352–360 hours).

Exhibit Dates: 5/54–12/68.

Objectives: To train officers to supervise instruction periods and other activities of the Army's troop information and education programs.

Instruction: Policies and procedures; speech preparation and presentation; discussion-leading techniques; organization of group study activities; instructor selection; testing procedures; advisement principles; practical exercises in newsgathering and newswriting; troop information radio broadcasting; comprehensive study of citizenship, history, government, and international affairs.

Credit Recommendation: In the vocational certificate category, 2 semester hours in social studies, 1 in journalism (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in social studies, 1 in journalism (12/73); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 in journalism (12/68).

DD-0504-0007

Public Information Officer

Course Number: 28-O-5.

Location: Information School, Ft. Slocum, NY.

Length: 8 weeks (360 hours).

Exhibit Dates: 5/54–12/68.

Objectives: To train officers to perform and/or supervise the preparation of news stories, special articles, posters, photographs, radio and television programs, and other informational material for release to information media; to establish speakers bureaus; and to promote friendly relations with information media representatives and civilian communities.

Instruction: Policies and procedures; speech preparation and presentation; public speaking exercises; use of visual-mechanical aids; basic photographic techniques, including camera operation, film processing, photo printing, picture selection, film types and exposures, and picture story assignments; civilian press operation, organization, and philosophy; newswriting; preparation of material for radio and television broadcasts; citizenship, history, government, and international affairs.

Credit Recommendation: In the vocational certificate category, 2 semester hours in social studies, 1 in mass media (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in social studies, 1 in mass media (12/73); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 in oral communications (12/68).

DD-0504-0008

Public Information Enlisted

Course Number: 28-E-2.

Location: Information School, Ft. Slocum, NY.

Length: 8 weeks (360 hours).

Exhibit Dates: 4/54–12/68.

Objectives: To train enlisted personnel to collect, prepare, and disseminate information to newspapers, magazines, radio, television, and other informational media, and to assist in promotion of other public relations activities.

Instruction: Policies and procedures; speech preparation and presentation; public speaking exercises; use of visual-mechanical aids; basic photographic techniques, including camera operation, film processing, photo printing, picture selection, film types and exposures, and picture story assignments; civilian press operation, organization, and philosophy; newswriting and related activities; preparation of material for radio and television broadcasts; citizenship, government, history, and international affairs; typing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in social studies, 1 in mass media (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in social studies, 1 in mass media (12/73); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 in oral communications (12/68).

DD-0504-0009

1. Information Officer
2. Information Officer
3. Information Officer Basic

Course Number: *All Versions:* 7G-5505. *Version 1:* 50BA7921-1; A-7G-0010; 7G-46A. *Version 2:* 50BA7921-1 (USAF); A-7G-0010. *Version 3:* 28-G-5505.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 8 weeks (306 hours). *Version 2:* 8 weeks (270–278 hours). *Version 3:* 8 weeks (284–285 hours).

Exhibit Dates: *Version 1:* 6/79–Present. *Version 2:* 1/72–5/79. *Version 3:* 1/65–12/71.

Objectives: To train commissioned officers as information specialists with competency in journalistic writing, editing, basic photography, radio and television writing and announcing, and public speaking.

Instruction: Lectures and practical exercises in the duties of an information specialist. Course includes journalistic writing and editing, basic photography, radio and television writing and announcing, public speaking, public information techniques and community relations, and study of international press and government attitudes.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 6 semester hours in public relations (journalism)(2/78). *Version 3:* In the vocational certificate category, 6 semester hours in journalism (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in journalism (7/74); in the upper-division baccalaureate category, 2 semester hours in social studies, 1 semester hour in oral communication, and additional credit in journalism on the basis of institutional evaluation (12/68).

DD-0504-0010

Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat)

Course Number: A-570-0010(S) (USN).

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: 2 weeks (81 hours).

Exhibit Dates: 10/76–Present.

Objectives: To train selected junior naval personnel as shipboard information, training, and entertainment system operators/administrators aboard designated ships.

Instruction: Through practical exercises, demonstration, and individual critique, the student learns the basics of video production, equipment utilization and maintenance, and external news relations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in introduction to video production (2/78).

DD-0504-0011

Information Officer (Reserve Component)

Course Number: 7G-F3 (RC).

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: 2 weeks (69 hours).

Exhibit Dates: 6/72–Present.

Objectives: To train reserve officers in functions of information specialists with emphasis or public relations, writing for print and broadcast media, photo editing and composition, internal information and community relations,

Instruction: Lectures and exercises in the duties of an information specialist including public relations principles, writing and editing for print and broadcast media, techniques for use of broadcast equipment and exercises in public information problems.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in public relations (journalism)(2/78).

DD-0505-0001

1. INFORMATION SPECIALIST (BROADCASTER)
2. INFORMATION SPECIALIST (BROADCASTER)
3. BROADCAST SPECIALIST
4. BROADCAST SPECIALIST (Radio and Television Production Specialist)

Course Number: *Version 1:* 570-71R10 (USA); A-570-0010 (USN); 5ALA-79131 (USAF); 570 (USMC). *Version 2:* 570-71Q20; A-570-0010; 5ALA79131. *Version 3:* 570-71R20. *Version 4:* AZA72151-1; 28-R-703;1 28-R-703.2.

Location: Defense Information School, Ft. Benjamin Harrison, IN; Defense Information School, Ft. Slocum, NY.

Length: *Version 1:* 10 weeks (348-397 hours). *Version 2:* 10 weeks (348–397 hours). *Version 3:* 8 weeks (287–298 hours). *Version 4:* 3 weeks (110 hours).

Exhibit Dates: *Version 1:* 10/79–Present. *Version 2:* 11/69–9/79. *Version 3:* 5/66–10/69. *Version 4:* 7/64–4/66.

Objectives: To train selected enlisted personnel to perform as broadcasters for military radio or television outlets.

Instruction: *All Versions:* Lectures and practical experience in applied journalism, including newsgathering, motion picture operation and editing; speech and research training; intensive indoctrination in radio and television, including programming, writing, operation, logs, control room, TV production, broadcast regulations, and appropriate examinations; and study of international relations. *Version 1:* Does not include motion picture operation and editing, TV production, broadcast regulations and study of international relations. *Version 2:* Does not include motion picture operation and editing, TV production, broadcast regulations and study of internation relations.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic writing for electronic media or continuity writing, 3 in introduction to radio and television techniques (2/78). *Version 3:* In the vocational certificate category, 6 semester hours in broadcast journalism (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in broadcast journalism (12/73); in the upper-division baccalaureate category, 3 semester hours in radio and television programming (12/68). *Version 4:* In the vocational certificate category, 2 semester hours in broadcast journalism (12/73); in the lower-division baccalaureate/associate degree category, 1 semester hour in broadcast journalism (12/73); in the upper-division baccalaureate category, 1 semester hour in radio and television programming (12/68).

DD-0505-0002

BROADCAST OFFICER

Course Number: *All Versions:* 7G-5522 (USA). *Version 1:* 7G-0011 (USN). *Version 2:* 7G-5522. *Version 3:* 28-A5522.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: *Version 1:* 6–7 weeks (229–257 hours). *Version 2:* 4 weeks (148 hours). *Version 3:* 3 weeks (110 hours).

Exhibit Dates: *Version 1:* 3/72–Present. *Version 2:* 12/67–2/72. *Version 3:* 7/64–11/67.

Objectives: To train selected commissioned officers, warrant officers, and civilians in the the basics of radio and television production. Additional management skills are introduced to provide the basic skills needed for: management of an American Forces Radio and Television Service (AFRTS) outlet, management of broadcast operations in a public affairs office, and management of stateside closed-circuit broadcast facilities.

Instruction: Course includes lectures and practical experiences in radio and television programming and production; additional individual attention to basic management skills.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in introducton to radio and television production (2/78). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in radio and television programming (7/74) *Version 3:* In the lower-division baccalaureate/associate degree category, 1 semester hours in radio and television programming (7/74)

DD-0505-0003

ELECTRONIC JOURNALISM

Course Number: 570-F3.

Location: Defense Information School, Ft. Benjamin Harrison, IN.

Length: 2 weeks (75 hours).

Exhibit Dates: 11/79–Present.

Objectives: To provide training in the planning, production, and editing of news and information features for television, utilizing electronic news gathering equipment and techniques.

Instruction: Training and practical experience in videotape editing techniques, portapak operations, and news gathering.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic news gathering and editing techniques (2/80).

DD-0602-0001

DEFENSE LANGUAGE INSTITUTE BASIC COURSES (1954–1956)
(Albanian)
(Arabic)
(Bulgarian)
(Chinese—Cantonese)
(Chinese—Mandarin)
(Czech)
(Danish)
(French)
(German)
(Greek)
(Hungarian)
(Italian)
(Japanese)
(Korean)
(Norwegian)
(Persian)
(Polish)
(Portuguese)
(Romanian)
(Russian)
(Serbo-Croatian)
(Spanish)
(Swedish)
(Turkish)

Course Number: None.

Location: Army Language School, Presidio of Monterey, CA.

Length: 23–46 weeks.

Exhibit Dates: 1/54–12/56.

Objectives: To train officers and enlisted personnel in the interpretation or translation of a foreign language, and to provide basic military, geographic, economic, historical, and political information about the country or area in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills on the language of a foreign country and basic military, geographic, economic, historical, and political information about the country in which the language is spoken. While these courses are listed as Basic, it should be understood that this is the terminology used by the armed forces to indicate that the courses are their 'regular' programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours in ALBANIAN for the 46-week course; 18 in ARABIC for the 46-week course; 18 in BULGARIAN for the 46-week course; 26 in CHINESE—CANTONESE for the 46-week course; 26 in CHINESE—MANDARIN for the 46-week course; 18 in CZECH for the 46-week course; 15 in DANISH for the 23-week course; 15 in FRENCH for the 23-week course; 15 in GERMAN for the 23-week course; 18 in GREEK for the 46-week course; 18 in HUNGARIAN for the 46-week course; 15 in ITALIAN for the 23-week course; 26 in JAPANESE for the 46-week course; 18 in KOREAN for the 46-week course; 15 in NORWEGIAN for the 23-week course; 18 in PERSIAN for the 46-week course; 18 in POLISH for the 46-week course; 15 in PORTUGUESE for the 23-week course; 18 in ROMANIAN for the 36-week course; 18 in RUSSIAN for the 46-week course; 18 in SERBO-CROATIAN for the 46-week course; 15 in SPANISH for the 23-week course; 15 in SWEDISH for the 23-week course; 18 in TURKISH for the 46-week course (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) The least difficult languages for the English speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0002

DEFENSE LANGUAGE INSTITUTE BASIC COURSES (AFTER 1956)
(Albanian)
(Arabic)
(Bulgarian)

(Burmese)
(Chinese—Cantonese)
(Chinese—Fukienese)
(Chinese—Toishan)
(Chinese—Mandarin)
(Czech)
(Danish)
(Finnish)
(French)
(German)
(Greek)
(Hungarian)
(Indonesian)
(Indonesian—Malay)
(Italian)
(Italian—Sicilian)
(Japanese)
(Korean)
(Lithuanian)
(Malay)
(Norwegian)
(Persian)
(Polish)
(Portuguese)
(Romanian)
(Russian)
(Serbo-Croatian)
(Slovenian)
(Spanish)
(Swahili)
(Swedish)
(Thai)
(Turkish)
(Ukrainian)
(Vietnamese—Saigon Dialect)
(Vietnamese—Hanoi Dialect)

Course Number: None.

Location: West Coast Branch, Presidio of Monterey, CA.

Length: 24–47 weeks.

Exhibit Dates: 1/57–Present.

Objectives: To train military personnel in the interpretation and translation of the designated language and to provide basic military, geographic, economic, historical, and political information about the country, and/or area, in which the language is spoken. (These area studies are taught in the foreign language.)

Instruction: Lectures, discussions, and oral drills in the interpretation and translation of the designated language, and additional training in the basic military, geographic, economic, historical, and political information about the country in which the language is spoken. NOTE: While these courses are listed as Basic, it should be understood that this is the terminology used by the Armed Forces to indicate that the courses are their 'regular' programs in the various languages. They are not limited to what most civilian institutions would term beginning or basic courses in a language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours in ALBANIAN for the 47-week course; 27 in ARABIC for the 47-week course (21 semester hours if the course was taken prior to 1970); 21 in BULGARIAN for the 47-week course; 21 in BURMESE for the 47-week course; 27 in CHINESE—CANTONESE for the 47-week course; 27 in CHINESE—FUKIENESE for the 47-week course; 27 in CHINESE—TOISHAN for the 47-week course; 27 in CHINESE—MANDARIN for the 47-week course; 21 in CZECH for the 47-week course; 15 in DANISH for the 24-week course; 21 in FINNISH for the 47-week course; 15 in FRENCH for the 24-week course; 15 in GERMAN for the 24-week course, 17 for the 32-week course (15 semester hours if the course was taken prior to 1970); 21 in GREEK for the 47-week course; 21 in HUNGARIAN for the 47-week course; 18 in INDONESIAN for the 36-week course, 21 for the 47-week course; 21 in INDONESIAN—MALAY for the 47-week course; 15 in ITALIAN for the 24-week course; 18 in ITALIAN—SICILIAN for the 37-week course; 27 in JAPANESE for the 47-week course; 27 in KOREAN for the 47-week course; 21 in LITHUANIAN for the 47-week course; 18 in MALAY for the 36-week course; 15 in NORWEGIAN for the 24-week course; 21 in PERSIAN for the 47-week course; 21 in POLISH for the 47-week course; 15 in PORTUGUESE for the 24-week course; 18 in ROMANIAN for the 37-week course; 21 in RUSSIAN for the 47-week course; 21 in SERBO-CROATIAN for the 47-week course; 21 in SLOVENIAN for the 47-week course; 15 in SPANISH for the 24-week course; 18 in SWAHILI for the 37-week course; 15 in SWEDISH for the 24-week course; 21 in THAI for the 47-week course; 18 in TURKISH for the 41-week course, 21 for the 47-week course; 21 in UKRAINIAN for the 47-week course; 21 in VIETNAMESE—HANOI DIALECT for the 47-week course; 21 in VIETNAMESE—SAIGON DIALECT for the 47-week course (8/74).

DD-0602-0003

Defense Language Institute Aural Comprehension Courses

(Albanian,
(Arabic)
(Bulgarian)
(Burmese)
(Chinese—Mandarin)
(Czech)
(French)
(German)
(Hungarian)
(Indonesian)
(Japanese)
(Korean)
(Persian)
(Polish)
(Portuguese)
(Romanian)
(Russian)
(Russian Stenotype)
(Serbo-Croatian)
(Spanish)
(Thai)
(Turkish)
(Vietnamese—Hanoi Dialect)

Course Number: None.

Location: West Coast Branch, Presidio of Monterey, CA.

Length: 23–50 weeks.

Exhibit Dates: 1/54–Present.

Objectives: To train students to comprehend the designated language as spoken by a foreign national.

Instruction: The Aural Comprehension Courses were established at the West Coast Branch on July 1, 1964 (except for the courses in Russian, which were offered previously). Although some reading and writing is included in these courses, they are designed primarily to teach students to comprehend the language as spoken by a foreign national. The spoken language is emphasized as a necessary corollary for developing comprehension skill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 15 semester hours in ALBANIAN for the 37-week course; 15 in ARABIC for the 47-week course; 15 in BULGARIAN for the 37-week course; 12 in BURMESE for the 37-week course; 12 in CHINESE—MANDARIN for the 33-week course, 15 for the 37-week course, 18 for the 47-week course, and 12 for the 32-week SPECIAL course; 15 in CZECH for the 37-week course; 12 in FRENCH for the 24-week course; 12 in GERMAN for the 24-week course; 15 in HUNGARIAN for the 37-week course; 15 in INDONESIAN for the 37-week course; 15 in JAPANESE for the 37-week course; 12 in KOREAN for the 37-week course; 15 in PERSIAN for the 37-week course; 15 in POLISH for the 37-week course; 12 in PORTUGUESE for the 24-week course; 15 in ROMANIAN for the 37-week course; 15 in RUSSIAN for the 23- or the 24-week course, 18 for the 37-week RUSSIAN course or the 50-week RUSSIAN STENOTYPE course; 15 in SERBO-CROATIAN for the 37-week course; 12 in SPANISH for the 24-week course; 12 in THAI for the 37-week course; 15 in TURKISH for the 37-week course; 15 in VIETNAMESE—HANOI DIALECT for the 37-week course, 18 for the 47-week course (8/74). NOTE: Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are recommended for less credit than the Basic Courses. It will be noted that the maximum credit recommended for a 37-week Aural Comprehension Course varies from 12 to 18 semester hours. This credit variation is based primarily upon the higher reading and writing content in those courses recommended for 15 and 18 semester hours. The 50-week Russian Stenotype Course includes the regular 37-week Russian Aural Comprehension Course and 13 weeks of stenotype training. Also: The credit recommended for the program is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0004

Defense Language Institute Short Basic Courses

(Arabic)
(French)
(German)
(Greek)
(Indonesian)
(Italian)
(Japanese)
(Korean)
(Persian)
(Portuguese)
(Romanian)
(Spanish)
(Thai)
(Turkish)
(Vietnamese—Saigon Dialect)

Course Number: None.

Location: West Coast Branch, Presidio of Monterey, CA.

Length: 6–24 weeks.

Exhibit Dates: 1/54–Present.

Objectives: To train officer and enlisted personnel from each branch of the armed services, and certain civilian personnel, in the comprehension, speaking, reading, and writing of the target language at a limited fluency level, with primary emphasis on comprehension and speaking; and to provide basic military, geographic, cultural, and political information about the country or area in which the language is spoken.

Instruction: Lectures, discussions, and oral drills in the comprehension, speaking, reading, and writing of the target language, and additional training in the basic military, geographic, cultural, and political information about the country or area in which the language is spoken. NOTE: The Short Basic Courses at the West Coast Branch are abbreviated versions of the Basic Courses, using the same instructional materials. Less credit is recommended for these programs than for the Basic Courses. However, it will be noted that certain Short Basic Courses, although not as long as the Aural Comprehension Courses in the same languages, carry the same or larger credit recommendations. The difference in these recommendations can be attributed to the fact that the Short Basic Courses are 'more academically suitable' than the Aural Comprehension Courses (i.e., they have a higher reading and writing content).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 8 semester hours in ARABIC for the 12-week course, 15 for the 24-week course; 8 in FRENCH for the 12-week course; 8 in GERMAN for the 12-week course, 10 for the 16-week course; 8 in GREEK for the 12-week course; 8 in INDONESIAN for the 12-week course; 8 in ITALIAN for the 12-week course; 8 in JAPANESE for the 12-week course; 8 in KOREAN for the 16-week course, 15 for the 24-week course; 8 in PERSIAN for the 12-week course, 15 for the 24-week course; 8 in PORTUGUESE for the 11- or 12-week course; 8 in ROMANIAN for the 12-week course; 8 in SPANISH for the 11- or 12-week course; 8 in THAI for the 12-week course, 10 for the 16-week course, and 15 for the 24-week course; 8 in TURKISH for the 12-week course; 3 in VIETNAMESE—SAIGON DIALECT for the 6-week course, 8 for the 8- or 12-week course, 10 for the 16-week course, 15 for the 32-week course (8/74). NOTE: The credit recommended for these programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0005

DEFENSE LANGUAGE INSTITUTE
EXTENDED OR BASIC-INTERMEDIATE COURSES
(Chinese—Mandarin)
(German)
(Japanese)
(Korean)
(Russian)
(Vietnamese)

Course Number: None.

Location: West Coast Branch, Presidio of Monterey, CA.

Length: 24–75 weeks.

Exhibit Dates: 1/54–Present.

Objectives: To train military personnel to a higher level of proficiency in the interpretation and translation of the designated language than is provided for in the scope of instruction of the Basic Courses and to provide, in the language, a somewhat wider knowledge of military, geographic, economic, historic, and political information of the country and/or area in which the language is spoken.

Instruction: BASIC-INTERMEDIATE COURSES: The designation "basic-intermediate" given by the military to the courses should not be confused with this term as used by civilian educational institutions. The Commission's consultants recommend as much as 40 semester hours for each course because of the material that the students are required to read and, in some cases, because of the characters to be learned and the level of the syntax. However, it is recognized that most civilian educational institutions would be reluctant to grant the full amount of credit recommended for the 74- to 75-week courses inasmuch as this would constitute a major in the language. It is further recognized that most colleges and universities would require some resident work in a major. Nevertheless, it was the consensus of the consultants that these programs correspond to college courses 'directed to mastery of the language." In other words, the courses are the equivalent of beginning, intermediate, and advanced courses in the language, plus composition, advanced composition (i.e., learning to write correctly), conversation, and a semester's course in the civilization of the appropriate country or area. It should be noted that no creative writing or literature is given in these programs. EXTENDED COURSES: These courses, which range from 24–37 weeks in length, are attended by students who have already completed a Basic or Aural Comprehension course. The primary objective of this add-on training is to improve language competency. Whereas in the Basic course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Extended Course. Pronunciation is expected to undergo considerable refinement, as is the size of the student's vocabulary. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official, business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Extended Course treats in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 40 semester hours in CHINESE—MANDARIN for the 74- to 75-week course; 15 in GERMAN for the 24-week course; 40 in JAPANESE for the 74- to 75-week course; 40 in KOREAN for the 74-75 week course; 18 in KOREAN for course, 40 for the 74- to 75-week course; 40 in VIETNAMESE for the 74-week course (8/74). In the graduate category, 6 semester hours in CHINESE—MANDARIN for the 74- to 75-week course; 6 in JAPANESE for the 74- to 75-week course; 6 in KOREAN for the 74- to 75-week course; 6 in RUSSIAN for the 74- to 75-week course; 6 in VIETNAMESE for the 74- to 75-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean). the 37-week course; 18 in RUSSIAN for the 37-week

DD-0602-0006

DEFENSE LANGUAGE INSTITUTE
INTERMEDIATE COURSES
(Arabic)
(Bulgarian)
(Chinese—Mandarin)
(Czech)
(French)
(German)
(Korean)
(Polish)
(Romanian)
(Russian)
(Serbo-Croatian)
(Spanish)
(Vietnamese)

Course Number: None.

Location: West Coast Branch, Presidio of Monterey, CA.

Length: 16–37 weeks.

Exhibit Dates: 1/54–Present.

Objectives: The Intermediate Courses at the West Coast Branch are a continuation of the Basic Courses with the objective of reaching a higher level of general language ability in all four language skills.

Instruction: Whereas in the Basic Course the audio-lingual skills were stressed, equal emphasis is put on all four language skills in the Intermediate Course. Pronounciation will undergo refinement through constant practice. All important structures are presumed to have been learned in the Basic Course; however, an extensive review is programmed, and new structures are taught functionally, as needed in dealing with the course content. Vocabulary count, customary indicator of the scope of a course, will increase rapidly and extensively. Active vocabulary is expected to double, and passive vocabulary to expand considerably. Fluency in reading is developed to the point of direct comprehension of the printed page. Proficiency in writing includes mastery of forms, such as official business, and social correspondence. Equal in importance to language competency is the matter of area knowledge. The Intermediate Course purports to treat in considerable depth all facets of the country's contemporary civilization, together with a study of the historical development of the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours in ARABIC for the 37-week course; 18 in BULGARIAN for the 37-week course; 18 in CHINESE—MANDARIN for the 37-week course; 18 in CZECH for the 36-week course; 10 in FRENCH for the 16-week course; 9 in GERMAN for the 24-week course; 18 in KOREAN for the 24-week course; 18 in POLISH for the 36-week course; 15 in ROMANIAN for the 24-week course; 18 in RUSSIAN for the 37-week course; 18 in SERBO-CROATIAN for the 37-week course; 15 in SPANISH for the 24-week course; 18 in VIETNAMESE for the 37-week course (8/74). In the graduate degree category, 6 semester hours in CHINESE—MANDARIN for the 37-week course; 6 in KOREAN for the 37-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0007

DEFENSE LANGUAGE INSTITUTE
ADVANCED COURSES
(Chinese—Mandarin)
(Russian)

Course Number: None.

Location: West Coast Branch, Presidio of Monterey, CA.

Length: 37 weeks.

Exhibit Dates: 1/69–Present.

Objectives: To train selected Department of Defense personnel in foreign languages at a more advanced level of proficiency than is provided in Defense Language Institute Extended or Intermediate Courses; and to provide a wide knowledge of cultural, geographical, economic, historical, and political information on the area in which the language is spoken.

Instruction: The advanced course places equal emphasis upon the development of all four language skills. There is no specialized or technical terminology in the course. It includes a total vocabulary of approximately 4,000 terms, over and above that covered in previous courses, that cover all general, nontechnical communication situations that one would normally encounter in the country of the target language. The cultural complex within which the language is spoken is covered extensively: history, economics, geography, politics, military, ethnic groups, languages, attitudes, customs and mores of the people, etc.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours in CHINESE—MANDARIN for the 37-week course; 18 in RUSSIAN for the 37-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with their level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0008

DEFENSE LANGUAGE INSTITUTE SPECIAL
COURSES
(Scientific Russian)
(Russian Refresher)

Course Number: None.

Location: West Coast Branch, Presidio of Monterey, CA.

Length: 6–12 weeks.

Exhibit Dates: 1/54–Present.

Objectives: The objective of the Scientific Course is to train military personnel to read and translate Russian technical and scientific publications and to speak and understand conversational Russian to a limited extent; the Refresher Course is designed to enable personnel to regain a basic competence in comprehension of the standard literary language.

Instruction: The Scientific Course includes instruction in Russian phonology and writing systems; oral exercises in elementary speech patterns; Russian structural patterns; reading practice; problems in lexicology; identification of Russian words and cognates; and scientific terminology. The Refresher Course provides an accelerated, systematic review of grammar and vocabulary.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, or in the upper-division baccalaureate category, credit in scientific Russian or Russian (refresher) on the basis of institutional evaluation (8/74).

DD-0602-0009

DEFENSE LANGUAGE INSTITUTE
COURSES—EAST COAST BRANCH
(Arabic)
(Chinese—Mandarin)
(French)
(German)
(Italian)
(Portuguese)
(Russian)
(Spanish)
(Turkish)
(Vietnamese—Hanoi Dialect)
(Vietnamese—Saigon Dialect)

Course Number: None.

Location: East Coast Branch, Washington, DC.

Length: 8–60 weeks.

Exhibit Dates: 1/54–Present.

Objectives: The Intensive Courses are designed to make military personnel thoroughly at ease in the speaking, understanding, reading, and writing of a foreign language; the shorter courses are designed to give students a limited command of the language.

Instruction: Lectures, discussions, and oral drills in the speaking, understanding, reading, and writing of a foreign language, with additional training in area studies, including the geography, history, politics, economics, government, social structure, and military situations pertaining to the area.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 18 semester hours in ARABIC for the 40-week course, 27 for the 47-week course (21 semester hours if the course was taken prior to 1970); 27 in CHINESE—MANDARIN for the 47-week course, 30 for the 60-week course, 18 for the special 9-month course; 4 in FRENCH for the 8-week course, 8 for the 12-week course, 12 for the 19-week course, 15 for the 24-week course; 4 in GERMAN for the 8-week course, 8 for the 12-week course, 17 for the 32-week course (15 semester hours if the course was taken prior to 1970), 18 for the 36-week course; 4 in ITALIAN for the 8-week course, 8 for the 12-week course, 15 for the 24-week course; 4 in PORTUGUESE for the 8-week course, 8 for the 12-week course, 12 for the 21-week course, 15 for the 24-week course; 18 in RUSSIAN for the 36-week course, 21 for 47-week course, 15 for the special 6-month course; 4 in SPANISH for the 8-week course, 8 for the 12-week course, 12 for the 19-week course, 15 for the 24-week course; 18 in TURKISH for the 36-week course, 21 for the 47-week course; 18 in VIETNAMESE—HANOI DIALECT for the 36-week course; 18 in VIETNAMESE—SAIGON DIALECT for the 36-week course, 21 for the 47-week course (8/74). In the graduate degree category, 3 semester hours in CHINESE—MANDARIN for the 60-week course (8/74). NOTE: The credit recommended for the programs is based not only upon the type of course given, but also upon the relative difficulty of the language studied. The various languages given by the Defense Language Institute are listed in accordance with the level of difficulty as follows: (1) the least difficult languages for the English-speaking learner (Danish, French, German, Italian, Norwegian, Portuguese, Romanian, Spanish, Swedish, and Swahili); (2) languages of greater difficulty, but with alphabetical writing systems which may be learned concurrently without appreciably affecting the progress in learning the spoken language (Albanian, Bulgarian, Burmese, Czech, Finnish, Greek, Hungarian, Indonesian, Lithuanian, Persian, Polish, Russian, Serbo-Croatian, Slovenian, Thai, Turkish, Ukrainian, and Vietnamese); and (3) the more difficult languages where the reading problem is complicated (Arabic, Chinese, Japanese, and Korean).

DD-0602-0010

DEFENSE LANGUAGE INSTITUTE SUPPORT

COMMAND COURSES
(Basic Vietnamese—Saigon Dialect)
(Aural Comprehension Vietnamese—Hanoi Dialect)
(Short Basic Vietnamese—Saigon Dialect)

Course Number: None.

Location: Biggs Field, El Paso, TX.

Length: 12–47 weeks.

Exhibit Dates: 1/54–Present.

Objectives: The Basic Course provides personnel with training in the interpretation and translation of the designated language, as well as basic military, geographic, economic, historical, and political information about the area in which the language is spoken; the Aural Comprehension Course is designed primarily to teach students to comprehend the language as spoken by a foreign national; the Short Basic Course is an accelerated version of the Basic Course.

Instruction: Lectures, discussions, and oral drills in the designated language. Basic Course: The term, 'Basic' as used by the military, indicates a 'regular' course in the language; i.e., the Basic Course is not limited to what most civilian institutions would term beginning or basic courses in the language. Aural Comprehension Course: Although some reading and writing is included, the spoken language is emphasized. Since the Aural Comprehension Courses do not place equal stress on the four language skills, they are recommended for less credit than the Basic Courses. Short Basic Course: Intensive training in the same material covered in the Basic Course.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 21 semester hours in VIETNAMESE—SAIGON DIALECT for the 47-week BASIC course, 8 for the 12-week SHORT BASIC course, 15 for the 32-week SHORT BASIC course; 18 in VIETNAMESE—HANOI DIALECT for the 47-week AURAL COMPREHENSION course (8/74).

DD-0602-0011

NATIONAL CRYPTOLOGIC SCHOOL RESIDENT LANGUAGE COURSES

(Basic Chinese—Refresher)
(Basic Russian—Refresher)
(Basic Vietnamese)

Course Number: None.

Location: National Cryptologic School, Ft. Meade, MD.

Length: 21–30 weeks.

Exhibit Dates: 1/54–Present.

Objectives: The 12-week Refresher courses are designed to enable personnel to regain a basic competence in comprehension of the standard literary language by an accelerated, systematic review of grammar and vocabulary. (A basic course in the language is assumed as a prerequisite); the 30-week Basic Vietnamese course is designed to teach personnel the grammar and vocabulary necessary for a basic comprehension of the standard literary language with emphasis on a thorough understanding of structure.

Instruction: Refresher Courses: Phonology; writing system; basic vocabulary of economic, political, and military terms. Basic Vietnamese: In addition to the preceding instruction, this course includes grammar (morphology, derivation, and syntax).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, extending into the upper-division baccalaureate category, 6 semester hours in CHINESE for the 12-week basic (refresher) course; 3 in RUSSIAN for the 12-week basic (refresher) course; 15 in Vietnamese for the 30-week basic course (8/74).

DD-1402-0001

COMMAND AND CONTROL

Course Number: None.

Location: Department of Defense Computer Institute, Washington, DC.

Length: 3 weeks (105 hours).

Exhibit Dates: 5/69–Present.

Objectives: To provide personnel with an introduction to automatic data processing and computer technology.

Instruction: Lectures and practical exercises in automatic data processing and computer technology, including survey of computers and peripheral equipment, computer fundamentals, source data collection, data communications, systems analysis, main memory and data representation, codes, fixed-word-length machine concepts, higher-level languages, and ADP system management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in principles of data processing (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of data processing (7/74); in the upper-division baccalaureate category, 2 semester hours in introduction to computer principles (12/68).

DD-1402-0002

INTRODUCTION TO COMPUTER TECHNOLOGY

Course Number: None.

Location: Department of Defense Computer Institute, Washington, DC.

Length: 2 weeks (65 hours).

Exhibit Dates: 8/77–Present.

Objectives: Course is designed to provide an educational background for middle-management personnel who are general-purpose digital computer systems users and have had little or no previous introduction to data processing principles.

Instruction: Course covers computer capabilities, limitations and applications; the basics of computer hardware and software; systems development management considerations, planning and design; and an introduction to operations research and analysis and quantitative techniques. The student is provided hands-on programming experience with a remote, time-sharing computer terminal using the BASIC programming language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (5/77).

DD-1402-0003

COMPUTER ORIENTATION FOR INTERMEDIATE EXECUTIVES

Course Number: None.

Location: Department of Defense Computer Institute, Washington, DC.

Length: 2 weeks (65 hours).

Exhibit Dates: 8/77–Present.

Objectives: Course is designed to provide an educational background for high-level management personnel who are general-purpose digital computer systems users and have had little or no previous introduction to data processing principles.

Instruction: Course covers computer capabilities, limitations, and applications; the basics of computer hardware and software; systems development management considerations; planning and design; and an introduction to operations research and analysis and quantitative techniques. The student is provided hands-on programming experience with a remote, time-sharing computer terminal using the BASIC programming language.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (5/77).

DD-1408-0001

DEFENSE SECURITY ASSISTANCE MANAGEMENT CORE

Course Number: SAM-C-11.

Location: Defense Institute of Security Assistance, Wright-Patterson AFB, OH.

Length: 2 weeks (112 hours).

Exhibit Dates: 10/77–Present.

Objectives: To provide an understanding of security assistance management from a national policy level through implementation by responsible agencies with emphasis on attendant planning and programming of the process.

Instruction: Instruction includes United States involvement in security assistance, its purpose, nature, basis, authority and current programs as they relate to government contracting and procurement management. The methods of instruction include lecture, case studies, simulator exercises and interaction with practitioners in the field.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (11/78)

DD-1408-0002

PROGRAM MANAGEMENT

Course Number: None.

Location: Defense Systems Management College, Ft. Belvoir, VA.

Length: 20 weeks (393 hours).

Exhibit Dates: 1/73–Present.

Objectives: To offer managers from the government, the military and industry skills and knowledge to successfully manage defense systems acquisition programs.

Instruction: Lectures, discussions and cases cover the following areas: defense program and project management including program cost management, contract management, procurement policy and logistics; production and operations management including quantitive methods; general management and organizational behavior; and managerial finance and accounting.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in production and operations management, 2 in managerial finance, and 1 in general management (4/80) in the graduate degree category, 9 semester hours in defense program and project management (If the student has already completed the course, Program Management for Functional Managers (Program Management for Contract Administration), only 6 hours additional credit is recommended) (4/80).

DD-1408-0003

INDUSTRY FINANCIAL MANAGEMENT

Course Number: None.

Location: Defense Systems Management College, Ft. Belvoir, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: The course provides the participant with an introduction to basic financial analysis.

Instruction: The course provides an overview of finance and managerial accounting, emphasizing the case approach. Topics covered include financial statement analysis, cost accounting, capital budgeting and contract pricing.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in finance and managerial accounting (4/80).

DD-1408-0004

Program Management for Functional Managers
(Program Management for Contract Administration)

Course Number: None.

Location: Defense Systems Management College, Ft. Belvoir, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 12/78–Present.

Objectives: To introduce contract administrators to program management systems.

Instruction: Lectures, discussion and cases in defense program and project management, systems acquisition, and functional management.

Credit Recommendation: In the graduate degree category, 3 semester hours in defense program and project management (4/80).

DD-1511-0001

National Security Management
(Correspondence Course of the Industrial College of the Armed Forces)

Course Number: None.

Location: Industrial College of the Armed Forces, Ft. Leslie J. McNair, Washington, DC.

Length: 52–104 weeks.

Exhibit Dates: 5/71–Present.

Objectives: To train officers in economic and industrial aspects of national security and the management of resources under all conditions and in the context of national and world affairs.

Instruction: Individualized readings and student research in economic and industrial aspects of national security and the management of resources under all conditions and in the context of national and world affairs, divided into four course blocks as follows: (1) Includes the national security structure, the environment of national security, the world in ferment, national urban problems, and concepts and practice of management. (2) Includes elements of defense economics, human resources for national strength, natural and energy resources, the industrial sector, transportation as the nation's lifeline, and the public utilities (gas, electricity, and telecommunications). (3) Includes economic policies for national strength, emergency economic stabilization, U.S. foreign economic policies, defense organization and management, requirements for national defense, and military systems analysis. (4) Includes defense military manpower, the national assets of science and technology, production for defense, procurement, supply management, and national aerospace programs.

Credit Recommendation: In the upper-division baccalaureate category, for students who complete the program WITH DISTINCTION—or based upon the admitting institution's evaluation of the applicant's work—3 semester hours in political science (The U.S. in Contemporary World Affairs), 3 in social science (The Social and Economic Bases of the U.S. National Security), 3 in management (Defense Policy and Management) (8/74); in the graduate degree category, 3 semester hours for completion of the entire program WITH DISTINCTION—or based upon the admitting institution's evaluation of the applicant's work (8/74). NOTE: Credit recommendation is based on an on-site evaluation. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future goals and the regulations of the admitting institution on transfer credit.

DD-1511-0002

National War College

Course Number: None.

Location: National War College, Ft. Leslie J. McNair, Washington, DC.

Length: 43 weeks.

Exhibit Dates: *Version 1:* 8/73–Present. *Version 2:* 8/70–7/73. *Version 3:* 8/56–7/70. *Version 4:* 8/54–7/56.

Objectives: The National War College provides professional education intended to improve the knowledge and expertise of a practitioner in the field of U.S. Foreign Affairs and National Security Affairs.

Instruction: Lectures, seminars, readings, and student research in military and national security affairs and international relations. The Core Curriculum is divided into five blocks as follows: (1) The Foundations of National Security; (2) Domestic Environment and National Security; (3) National Security Problems and the Decision-Making Process; (4) Military Strategy and Strategic Posture; and (5) Reassessment of National Security Problems. Area studies include: (1) Canada, Europe, and the U.S.S.R.; (2) East Asia and the Western Pacific; (3) South Asia, the Middle East, and Africa; and (4) Latin America. Area electives include courses on Europe, the Far East, Africa, Latin America, or the Mid-East. The course titled National Security Analyses includes an intensive study of politico-military economic, social, psychological, and geographic factors for an analysis of critical issues affecting U.S. national security policies and objectives in Europe, the Middle East and South Asia, Africa, the Far East, and Latin America; an overseas trip to one of these areas for observation is part of the course.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 30 semester hours—to be apportioned by the receiving institution—in the areas of history, political science, international relations, and management (8/74); in the graduate degree category, for the core curriculum, 6 semester hours in foreign policy and security affairs, 3 in political science; for one of the area courses plus one related elective, the overseas trip, and the synthesis course, 6 semester hours for students specializing in foreign policy and security affairs OR 3–6 hours for students in a more general program of comparative government or area studies based on the receiving institution's review of the student's records; for research and thesis, 0–6 semester hours; for any two of the following electives, 3 semester hours if relevant to the student's program specialization: National Security and Problems of International Law, Strategy of Arms Control, Problems of Developing Countries and U.S. Security, Current Issues in Defense Policy, U.S. Society and National Security, Current Economic Problems, Vietnam: A Beginning Reassessment, the Energy Issue: Problems and Prospects, of Futuristics (8/74). NOTE: Credit granted for theses should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 2:* In the upper-division baccalaureate category, 30 semester hours—to be apportioned by the receiving institution—in the areas of history, political science, international relations, and management (8/74); in the graduate degree category, 3 semester hours in theory and practice of international relations, 3 in U.S. national security policy, 3 in international relations/area studies (specific area to be determined by the geographical region of the student's trip), 0–6 in research and thesis, 3 upon completion of any two of the following elective courses: Current Reinterpretations of Marxist Thought, History of Strategic Thought, or International Law (8/74). NOTE: Credit recommendation is based on an on-site evaluation. Credit granted for theses should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 3:* In the upper-division baccalaureate category, 15 semester hours in political science (including international relations), 9 in recent and contemporary history, 3 in business administration (8/74). *Version 4:* In the upper-division baccalaureate category, 15 semester hours in political science (including international relations), 9 in recent and contemporary history, 3 in business organization and management, 3 in speech (12/68).

DD-1511-0003

Industrial College of the Armed Forces (Resident Program)

Course Number: None.

Location: Industrial College of the Armed Forces, Ft. Leslie J. McNair, Washington, DC.

Length: 43 weeks.

Exhibit Dates: *Version 1:* 8/69–Present. *Version 2:* 8/66–7/69. *Version 3:* 8/65–7/66. *Version 4:* 8/64–7/65. *Version 5:* 8/63–7/64. *Version 6:* 8/54–7/63.

Objectives: To train officers in the political, military, social, economic, and industrial aspects of national security, in resource management, and in the command, staff, and policy-making functions of the national and international security structure.

Instruction: Lectures, practical exercises, seminars, readings, field studies, and student research in the political, military, social, economic, and industrial aspects of national security, in resources management, and in national and world affairs.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in political science, 3 in international relations, 3 in social science, 3 in national economic problems and policies, 3 in principles of economic analysis, 3 in quantitative analysis, 6 in management, 3 in public administration, 0–3 in research and thesis (exact amount to be determined by institutional review) (8/74); in the graduate degree category, 2 semester hours in national security, 2 in aspects of national strength, 2 in international relations, 2 in management of industrial resources, 2 in governmental management, 2 in national economic problems and policies, 0–6 in research and thesis (8/74). NOTE: Credit granted for theses should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 2:* In the upper-division baccalaureate category, 12 semester hours in political science (including international relations), 12 in business administration, 3 in recent history, 6 in economics, 3 in geography, 3 in general physics, 3 in mathematics (8/74). *Version 3:* In the upper-division baccalaureate category, 12 semester hours in political science, 9 in business administration, 3 in recent history, 3 in economics, 3 in geography, 3 in general physics, 3 in mathematics (12/68). *Version 4:* In the upper-division baccalaureate category, 12 semester hours in political science (including international relations), 6 in business administration, 3 in recent history, 3 in economics, 3 in geography (12/68). *Version 5:* In the upper-division baccalaureate category, 12 semester hours in political science (including international relations), 6 semester hours in business administration, 3 in speech, 6 in recent history, 3 in economics (12/68). *Version 6:* In the upper-division baccalaureate category, 15 semester hours in political science (including international relations), 3 in business organization and management, 3 in speech, 9 in recent and contemporary history (12/68).

DD-1511-0004

1. Postgraduate Intelligence Course (Defense Intelligence Course)
2. Defense Intelligence Course

Course Number: None.

Location: Defense Intelligence School, Naval Station (Anacostia Annex), Washington, DC.

Length: *Version 1:* 33 weeks (1325 hours). *Version 2:* 38 weeks (1425–1504 hours).

Exhibit Dates: *Version 1:* 3/72–Present. *Version 2:* 1/63–2/72.

Objectives: To train officers in intelligence operations and techniques, and management concepts and techniques as they apply to intelligence resources, processes, and information systems, OR in intelligence procedures, operations, and structures as they relate to international action.

Instruction: Lectures, practical exercises, readings, and individualized study in intelligence operations and techniques and in management concepts and techniques as they apply to intelligence resources, processes and information systems at various levels.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in modern history, 6 in political science, credit in geography on the basis of institutional examination (upon completion of phases one and two), 3 in principles of management (upon completion of phase three) (8/74); in the graduate degree category, 6 semester hours in international relations or political science, OR, if the applicant's field of study in graduate school is in the area of economics or political geography, 4 semester hours in international relations or political science (8/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in modern history, 6 in political science, 3 in geography (12/68); in the graduate degree category, 6 semester hours in international relations or political science, OR, if the applicant's field of study in graduate school is in the area of economics or political geography, 4 semester hours in international relations or political science (8/74).

DD-1511-0005

Inter-American Defense College

Course Number: None.

Location: Inter-American Defense College, Ft. Leslie J. McNair, Washington, D.C..

Length: 52 weeks.

Exhibit Dates: 7/65–Present.

Objectives: To function as a military institution for advanced studies, with the purpose of preparing military personnel and civilian officials of the American States through the study of the Inter-American System and the political, social, economic and military factors that constitute essential elements for the defense of the hemisphere.

Instruction: The curriculum includes a review of basic theoretical topics in the classical areas of power and general studies of the current world situation, thus providing an adequate framework for an extensive analysis of the hemisphere's situation in the light of political, social, economic and military factors. The students learn and practice, in group discussions, the methodology of international cooperation in basic aspects of continental security planning at higher levels of general and military strategy. The modes of instruction include numerous lectures by outside experts, seminars and symposia for discussion of the materials presented, study committees and the preparation of individual research papers.

Credit Recommendation: In the graduate degree category, 6 semester hours in international relations for students rated "very good" or "outstanding" (11/76).

DD-1511-0006

Reserve Components National Security Seminar

Course Number: None.

Location: National Defense University, Vandenverg AFB, CA; National Defense University, Naval Air Station, Pensacola. FL; National Defense University, Ft. Bragg, NC; National Defense University, Ft. Lesley McNair, Washington, DC.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/76–Present.

Objectives: To present and analyze issues of national security and foreign policy.

Instruction: This seminar includes global intelligence assessment (U.S. policy perspective); U.S. security policy (East Asia, Western Europe, and the Soviet Union, the Middle East and the developing countries); arms trade and arms acquisitions; defense analysis including a case study; DoD Management; ocean policy; economic issues; human and industrial resources; energy problems; and simulation exercise.

Credit Recommendation: Credit is not recommended for the course (1/79)

DD-1512-0001

1. Defense Equal Opportunity Management Institute
2. Defense Race Relations Institute
3. Defense Race Relations Institute

Course Number: None.

Location: Defense Equal Opportunity Management Institute, Patrick AFB, FL; Defense Race Relations Institute, Patrick AFB, FL.

Length: *Version 1:* 16 weeks (585 hours). *Version 2:* 7–11 weeks (184–425 hours). *Version 3:* 7 weeks (205 hours).

Exhibit Dates: *Version 1:* 6/78–Present. *Version 2:* 8/74–5/78. *Version 3:* 10/72–7/74.

Objectives: To provide students with a foundation of knowledge on intergroup relations, cultural specificity, and an awareness of those processes that form social opinion. The program is also designed to provide participants with as instructors in race relations and to provide them with management, planning and applications skills needed in maintaining effective institutional human relations programs.

Instruction: *Version 1:* Lectures, seminars, simulation/interactional techniques, case study, role play and games in the theory and practice of human relations and the application and management of human relations programs. Program takes multidisciplinary approach to minority and behavioral studies and instructional methodology. Program is designed to prepare the participants as instructors and consultants in race relations, equal opportunity and women's issues, and organizational effectiveness as it as it relates to discriminatory policies procedures and practices. *Version 2:* Lectures, seminars, simulation/interactional techniques, case study and field laboratory (inner city visitation) in the theory and practice of human relations and the application and management of human relations programs. The program takes a multi-disciplinary approach to minority and behavioral studies and instructional methodology. Participants are prepared as instructors in race relations. *Version 3:* Lectures, seminars, readings, and discussions in intergroup relations, social processes, behavioral sciences, minority studies, and instructional techniques, divided into five course blocks as follows: (1) The Individual in Social Interaction, including psychological theories of the self, and defense mechanisms; social significance of attitudes and behavior; stereotypes, the psychology of rumor; and race and individual differences. (2) Racism and Ways to Combat It, including military racial disorders, the Kerner Commission report, racism in U.S. history and contemporary life; the nature of prejudice; signs and symbols in communication and their role in racial conflict; institutional racism; racial issues (law enforcement, housing, employment, and education); racial polarization and separation; new white consciousness, contemporary white American culture; and strategies for combatting racism. (3) Group Dynamics, including introduction to group processes, group formation, techniques of facilitating group performance, the individual and the group, group goals and norms; group problems (members and feelings, recognition of hidden agendas within a group, methods of approach); leadership functions in groups; recognition of goal types; conditions affecting cohesiveness and conformity; and intergroup relations, examined through discussion on problems of communication, minority participation in policy and programs, changing the practice of desegregation, and establishing the values of integration. (4) Educational Techniques, including guided discussion as a teaching method; information processing limitations; use of selective exposure, interpretation (attention), and retention in reinforcing attitudes and opinions; use of sociodrama as a teaching technique; lesson planning and educational presentations; student teaching exercises; instructional aids; and creative teaching. (5) Minority Studies, including Afro-American history, migrant group, Appalachian cultures, Indian culture and contemporary thought, and Asian-American history and contemporary situation; history of blacks in the military, contemporary black thought, and inner-city problems. Participants are prepared as instructors in race relations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in sociology of women, 3 in culture and society, 3 in interracial relations and interethnic relations, 3 in organizational effectiveness (9/79); in the graduate degree category, 3 semester hours in interpersonal communication, 3 in instructional methodology (9/79) *Version 2:* In the upper-division baccalaureate category, 18 semester hours in social and behavioral science, to be assigned among the following subject areas: applied psychology, group dynamics, intergroup relations, communications theory, history of minorities and ethnic groups, and instructional methodology (5/76); in the graduate degree category, 9 semester hours in social and behavioral science, to be assigned among the following subject areas: applied psychology, group dynamics, intergroup relations, communications theory, history of minorities and ethnic groups, and instructional methodology (5/76). *Version 3:* In the upper-division baccalaureate category, 4 semester hours in behavioral science laboratory, and 6 in social and behavioral science, to be assigned in any of the following disciplines: applied psychology, group dynamics, intergroup relations, or history of minorities and ethnic groups (8/74); in the graduate degree category, 4 semester hours in behavioral science laboratory (8/74). NOTE; Recommendations of credit are maximum figures. The amount of credit actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit.

DD-1601-0001

BASIC PHOTOGRAMMETRIC CARTOGRAPHIC TECHNIQUES

Course Number: 411-204.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 9 weeks (293 hours).

Exhibit Dates: 5/72–Present.

Objectives: To train enlisted personnel to compile and revise planimetric, topographic maps and photomaps, using drafting instruments and plotting devices.

Instruction: Lectures and practical exercises in the compilation and revision of planimetric, topographic maps and photomaps, including compilation base and radial triangulation, map compilation and map revision, aerial photo mosaic, color separation, maintenance of cartographic equipment and facilities, DMA topographic center tour security, construction of controlled photomosaic, transfer of revision data to compilation base, and delineation of aerial photography.

Credit Recommendation: In the vocational certificate category, 6 semester hours in map and mosaic making (5/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in map and mosaic making (5/74); in the upper-division baccalaureate category, 3 semester hours in map and mosaic making (5/74).

DD-1601-0002

GEODETIC SURVEYING

Course Number: 412-82D20; 5ABD22230; 412-101.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 10 weeks (376 hours).

Exhibit Dates: 12/73–Present.

Objectives: To train enlisted personnel in geodetic surveying.

Instruction: Lectures and practical exercises in geodetic surveying, including the establishment of ground survey control through differential leveling, gravity surveys, traverse, triangulation, and astronomic observation; mapping and charting in the support of weapons systems and other operations; military construction surveys; establishment of control; expedient-road and landing-site planning; and construction-site layout surveys for theater-of-operations construction support.

Credit Recommendation: In the vocational certificate category, 10 semester hours in plane and geodetic surveying (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in plane and geodetic surveying (5/74); in the upper-division baccalaureate category, 6 semester hours in plane and geodetic surveying (5/74).

Related Occupation Codes: 82D.

DD-1601-0003

ADVANCED GEODETIC SURVEYING

Course Number: 4M-710.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 20 weeks (707 hours).

Exhibit Dates: 12/73–Present.

Objectives: To provide geodetic surveyors with training in advanced geodetic survey techniques.

Instruction: Lectures and practical exercises in advanced geodetic survey techniques, including astronomic observations for longitude, latitude, and azimuth; computing and adjusting geodetic figures, directions, lengths, positions, and differences in elevation; precise instrumentation related to high-order surveys; orientation on analytical point positioning using photogrammetry; vertical control surveys; geodesy and gravity surveys; and map compilation and digital computers.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 15 semester hours in advanced geodetic surveying (5/74); in the upper-division baccalaureate category, 10 semester hours in advanced geodetic surveying (5/74).

DD-1601-0004

TERRAIN ANALYSIS

Course Number: 491-81Q20; 491-101.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 10 weeks (314 hours).

Exhibit Dates: 10/73–Present.

Objectives: To provide soils analysts, map compilers, and image interpreters with training in geographic analysis.

Instruction: Lectures and practical exercises in terrain analysis, including principles and techniques of terrain analysis, map reading and land navigation, basic photographic interpretation and cartographic principles, techniques for describing terrain, geologic and hydrologic concepts, amphibious operations planning considerations, evaluation of terrain elements, base development and LOC planning considerations, engineer reconnaissance, engineer applications of photography, and applied terrain analysis.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in terrain analysis (5/74); in the upper-division baccalaureate category, 4 semester hours in terrain analysis (5/74).

Related Occupation Codes: 81Q.

DD-1601-0005

ADVANCED PHOTOGRAMMETRIC CARTOGRAPHIC TECHNIQUES

Course Number: 411-205.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 8 weeks (281 hours).

Exhibit Dates: 5/73–Present.

Objectives: To train noncommissioned officers to perform as photogrammetric-cartographic technicians.

Instruction: Lectures and practical exercises in earth and physical sciences as related to the photogrammetric-cartographic career area, including regional physiography, goedetic datums, horizontal and vertical control, positional evaluation, photographic metrics, projections, grids, photo tilt, photo restitution, structural heights, industrial analysis, photogrammetric equipment, aerial reconnaissance systems, and support functions of photographic and lithographic areas.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 8 semester hours in photogrammetric interpretations (5/74); in the upper-division baccalaureate category, 6 semester hours in photogrammetric interpretations (5/74).

DD-1601-0006

GEODETIC COMPUTING

Course Number: 412-82E20; 5ABD22231; 412-102.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 11 weeks (378 hours).

Exhibit Dates: 12/72–Present.

Objectives: To train enlisted personnel in geodetic computing.

Instruction: Lectures and practical exercises in geodetic computing, including comprehensive mathematics review; use of electronic calculators; map reading; computations in grid and declination grid conversions and transformations; grid traverses and electronic distance measurements; grid triangulation, leveling, traverse, and trilateration; astronomic azimuth and position; and adjustment of geometric figures, directions, linelength, and elevation difference from surveyor notes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 12 semester hours in geodetic computations (5/74); in the upper-division baccalaureate category, 8 semester hours in geodetic computations (5/74).

Related Occupation Codes: 82E.

DD-1601-0007

MAPPING, CHARTING, AND GEODESY OFFICER

Course Number: 4M-7915; 4M-F2; 5OZD5724; 4M-701.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 12 weeks (372 hours).

Exhibit Dates: 1/74–Present.

Objectives: To train officers in mapping, charting, and geodesy.

Instruction: Lectures and practical exercises in mapping, charting, and geodesy processes, including theory of errors; and MC and G survey, photogrammetric, cartographic, and reproduction operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 9 semester hours in mapping, charting, and geodesy (5/74); in the upper-division baccalaureate category, 6 semester hours in mapping, charting, and geodesy (5/74).

DD-1601-0008

CONSTRUCTION SURVEYING

Course Number: 412-82B20; 412-110.
Location: Defense Mapping School, Ft. Belvoir, VA.
Length: 11 weeks (362 hours).
Exhibit Dates: 7/72–Present.
Objectives: To train enlisted personnel in plane surveying fundamentals.
Instruction: Lectures and practical exercises in plane surveying fundamentals, including equipment maintenance, recording procedures, map reading, route selection, one-minute theodolite, engineer transit, horizontal taping, traverse layout, plane traverse computation, engineer dumpy level, differential leveling, trigonometric elevations, planetable surveying, transit-stadia, contour strip map, horizontal curves, road layout, profile and cross-section leveling, profile and grade line plotting, vertical curves, end area, volumes, boundary alignment, slope and grade stakes, site plans and construction drawings, and building utilities and airfield layout.
Credit Recommendation: In the vocational certificate category, 10 semester hours in construction surveying (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in construction surveying (5/74); in the upper-division baccalaureate category, 6 semester hours in construction surveying (5/74).
Related Occupation Codes: 82B.

DD-1601-0009

PHOTOGRAMMETRIC COMPILATION

Course Number: 411-203; 411-81C30.
Location: Defense Mapping School, Ft. Belvoir, VA.
Length: 8 weeks (270 hours).
Exhibit Dates: 6/71–Present.
Objectives: To train map compilers in the principles and techniques of photogrammetric map compilation.
Instruction: Lectures and practical exercises in the principles and techniques of photogrammetric map compilation, including multiplex stereoplotting equipment, multiplex stereoplotter orientation, reduction printing, stereocompilation, high-precision stereoplotter, stereotriangulation, and special operational subjects.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in photogrammetric compilation (7/74); in the upper-division baccalaureate category, 3 semester hours in photogrammetric compilation (7/74).
Related Occupation Codes: 81C.

DD-1601-0010

TOPOGRAPHY AND PRINTING STAFF NONCOMMISSIONED OFFICER (NCO)

Course Number: 41-751.
Location: Defense Mapping School, Ft. Belvoir, VA.
Length: 2 weeks (80 hours).
Exhibit Dates: 6/79–Present.
Objectives: To provide the skills to permit effective performance of supervisory functions in an Army topographic unit.
Instruction: Topics include production scheduling and quality control.
Credit Recommendation: Pending evaluation.

DD-1601-0011

BASIC CARTOGRAPHY

Course Number: 411-200.
Location: Defense Mapping School, Ft. Belvoir, VA.
Length: 16–17 weeks (498 hours).
Exhibit Dates: 6/79–Present.
Objectives: To provide required knowledge to perform basic cartographic and photogrammetric tasks with general supervision.
Instruction: Includes cartographic compilation, map revision and color separation techniques.
Credit Recommendation: Pending evaluation.

DD-1601-0012

BASIC TOPOGRAPHIC OFFICERS

Course Number: 4M-703.
Location: Defense Mapping School, Ft. Belvoir, VA.
Length: 8 weeks (296 hours).
Exhibit Dates: 9/77–Present.
Objectives: To teach the student to function in a unit engaged in topographic or geographic intelligence operations.
Instruction: Subjects include survey operations, exploitation of source materials, map base revision and graphic arts operations.
Credit Recommendation: Pending evaluation.

DD-1601-0013

BASIC PHOTOGRAPHIC PROCESSES

Course Number: 740-306.
Location: Defense Mapping School, Ft. Belvoir, VA.
Length: 14 weeks (460 hours).
Exhibit Dates: 11/76–Present.
Objectives: To teach skills to develop basic technical to complete the photolithographic process.
Instruction: Includes teaching the student to prepare single and multicolor camera ready copy utilizing cold type equipment and metric measurement; course is devoted primarily to camera operations and stripping and platemaking operations.
Credit Recommendation: Pending evaluation.

DD-1606-0001

NATIONAL SENIOR INTELLIGENCE

Course Number: None.
Location: Defense Intelligence School, Washington, DC.
Length: 14 weeks (560 hours).
Exhibit Dates: 6/72–Present.
Objectives: To provide officers and civilian personnel with the knowledge necessary to hold management positions in the field of national and international intelligence.
Instruction: Lectures in the processing and management of intelligence information, development and implementation of U.S. foreign policy, the national intelligence structure, and government agencies involved in foreign policy.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in international relations, public administration, or political science (1/74).

DD-1706-0001

MULTILITH 1250 REPAIR

Course Number: 690-621.
Location: Defense Mapping School, Ft. Belvoir, VA.
Length: 2 weeks (80 hours).
Exhibit Dates: 11/73–Present.
Objectives: To train multilith operators to troubleshoot, and perform preventive maintenance on, 1250 multiliths.
Instruction: Lectures and practical exercises on the preventive maintenance and repair of the 1250 multilith, including mechanical adjustments necessary to maintain the operational capability of the 1250 multilith, normal operator adjustments, system alignments and adjustments, maintenance, case problems, and preventive maintenance.
Credit Recommendation: In the vocational certificate category, 3 semester hours in multilith 1250 repair (6/74).

DD-1706-0002

REPRODUCTION EQUIPMENT REPAIR

Course Number: 690-41K20; 690-620.
Location: Defense Mapping School, Ft. Belvoir, VA.
Length: 15 weeks (512 hours).
Exhibit Dates: 6/72–Present.
Objectives: To train enlisted personnel to operate and repair reproduction equipment, including copy cameras, power paper cutters, paper folder-stitchers, and offset duplicating machines.
Instruction: Lectures and practical exercises in the operation and maintenance of reproduction equipment. Course includes the 24 X 30 copy camera, introduction to photolithography, repair parts supply, operational adjustments, aligning adjustments, repair procedures, maintenance of layout and platemaking equipment, repair of electrical components, repair and maintenance of power paper cutter, repair, maintenance, and timing of the offset duplicating machine, and the maintenance and repair of the bindery equipment and the paper folder and stitcher.
Credit Recommendation: In the vocational certificate category, 5 semester hours in business machine repair (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business machine repair (5/74).
Related Occupation Codes: 41K.

DD-1709-0001

INTERMEDIATE PHOTOJOURNALISM

Course Number: 570-ASIJ8.
Location: Defense Information School, Ft. Benjamin Harrison, IN.
Length: Self-paced 7 weeks (276–280 hours).
Exhibit Dates: *Version 1:* 10/78–Present. *Version 2:* 10/77–9/78.
Objectives: To provide photojournalism training for journalists and photographers.
Instruction: Students are given instruction in basic camera techniques, basic and advanced black and white darkroom procedures, Ektachrome slide processing, photo layout and design, and multi-media slide presentations. A course option includes news, feature, and cutline writing. Part of course is self-paced.
Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 3 semester semester hours in photojournalism (2/78)

DD-1713-0001

MAP COMPILATION

Course Number: 413-81B20; 411-202.
Location: Defense Mapping School, Ft. Belvoir, VA.
Length: 9 weeks (325 hours).
Exhibit Dates: 10/70–Present.

Objectives: To train enlisted personnel in the compilation and revision of planimetric maps, topographic maps, and photomaps, using drafting instruments and plotting devices.

Instruction: Lectures and practical exercises in the compilation and revision of planimetric, topographic, and photomaps, including compilation base and radial triangulation, map compilation and revision, aerial photography planning and mosaics, extraction of cartographic detail from aerial photographs, color separation, situation overlays and special studies, maintenance of cartographic equipment and facilities, and editing of color separation scribe sheets.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 7 semester hours in map compilation (5/74); in the upper-division baccalaureate category, 4 semester hours in map compilation (5/74).

DD-1713-0002

Cartographic Drafting

Course Number: 411-201.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 9 weeks (293 hours).

Exhibit Dates: 5/72–Present.

Objectives: To train enlisted personnel to perform as cartographic draftsmen.

Instruction: Lectures and practical exercises in cartographic drafting. Topics include compilation base and radial triangulation, basic compilation and map revision, aerial photomosaics, color separation, and situation overlays and special studies.

Credit Recommendation: In the vocational certificate category, 6 semester hours in cartographic drafting (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in cartographic drafting (5/74); in the upper-division baccalaureate category, 2 semester hours in cartographic drafting (5/74).

DD-1713-0003

Construction Drafting

Course Number: 413-81B20; 413-210.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 11 weeks (362–405 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train enlisted personnel to perform as construction draftsmen.

Instruction: Lectures and practical exercises in the preparation of working drawings, charts, and graphs for the construction of roads, airfields, bridges, buildings, ports, harbors, and other military construction, including construction drafting; preparation of mechanical, construction, utilities, structural, and technical drawings; engineer drawings; mechanical lettering; and charts and graphs.

Credit Recommendation: In the vocational certificate category, 10 semester hours in architectural drafting (7/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in architectural drafting (7/74); in the upper-division baccalaureate category, 6 semester hours in architectural drafting (7/74).

DD-1719-0001

Lithographic Stripping and Platemaking

Course Number: 740-83D20; 740-302.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 7 weeks (227 hours).

Exhibit Dates: 4/72–Present.

Objectives: To train enlisted personnel to prepare and produce offset plates to be used in the lithographic printing process.

Instruction: Lectures and practical exercises in the preparation and production of offset plates to be used in the lithographic printing process, including layout, stripping, and platemaking procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in graphics or printing (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in graphics or printing (5/74).

DD-1719-0002

Offset Printing

Course Number: 740-83F20; 740-303.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 8 weeks (276 hours).

Exhibit Dates: 11/73–Present.

Objectives: To train enlisted personnel to operate offset presses in the reproduction of maps, charts, and other printed line work.

Instruction: Lectures and practical exercises in offset printing. Topics include photolithography materials, methods of producing military maps, operation of power paper cutter; maintenance of offset press, controls, feeder and delivery assemblies, cylinder assembly, dampening assembly, linking assembly, printing practice, identification of printing problems, printing a three-color and five-color map, and modern methods of lithographic offset press operations.

Credit Recommendation: In the vocational certificate category, 4 semester hours in graphic arts (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in graphic arts (5/74).

DD-1719-0003

Lithographic Photography

Course Number: 740-83D20; A-740-0020; 740-301.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 8 weeks (276 hours).

Exhibit Dates: 11/73–Present.

Objectives: To train enlisted personnel to operate copy cameras and related equipment.

Instruction: Lectures and practical exercises in fundamentals of copy photography, camera operation, film processing, exposure, filters, line and continuous-tone copying, halftone magenta screens, contact printing, diapositive glass plates, pictomaps, electronic contact printer, and preventive maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic lithography on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic lithography on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 2 semester hours in basic lithography on the basis of institutional evaluation (7/74).

DD-1719-0004

Offset Duplicating Equipment Operator

Course Number: 740-304.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 5 weeks (145 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel in the operation and basic maintenance of the offset duplicator, camera processor, and platemaker equipment.

Instruction: Course includes: introduction to photolithography; training in the operation of the 3M MR-412 Camera Processor and the A.B. Dick 675/...Copier with Platemaker Converter; and training in the operation and maintenance of other duplicating equipment, including the A&M 1250 Multilith Duplicator, the A.B. Dick 350 Duplicator, the ATF Davidson 500 Duplicator, and the ATF Davidson Perfector Duplicator.

Credit Recommendation: In the vocational certificate category, 5 semester hours in offset duplicating equipment operation (6/74).

DD-1721-0001

Optical Survey Instrument Repair

Course Number: 670-41B20; 670-601.

Location: Defense Mapping School, Ft. Belvoir, VA.

Length: 12 weeks (382 hours).

Exhibit Dates: 2/74–Present.

Objectives: To train enlisted personnel to maintain and repair optical surveying and mapping instruments.

Instruction: Lectures and practical exercises in surveying and mapping instrument maintenance, adjustment, and repair, including abney hand level, dumpy level, telescopic alidade, transit, military level, one-minute and one-second theodolites, and survey tapes.

Credit Recommendation: In the vocational certificate category, 8 semester hours in optical survey instrument repair (5/74).

DD-1728-0001

Industrial Security Specialist

Course Number: 5220-2.

Location: Defense Industrial Security Institute, Richmond, VA.

Length: *Version 1:* 5 weeks (182–183 hours). *Version 2:* 3 weeks (113 hours).

Exhibit Dates: *Version 1:* 7/76–Present. *Version 2:* 9/72–6/76.

Objectives: To provide industrial security specialists with training in defense industrial security.

Instruction: *All Versions:* Lectures and practical exercises in the history, management, application, and functions of the defense industrial security program, organization for security cognizance, laws and regulations, security hazards, applicable security resources, responsibilities of contracting officers, personnel clearance programs, inspections, security education program, security arrangements, international aspects, and espionage. *Version 1:* This version emphasizes the security threat against the U.S. government and industry; facility protection programs; classified document control; electronic and physical security measures; communications security; vulnerabilities of and protective measures for automatic data-processing systems, emergency/disaster planning and procedures. Audio-visual presentations.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in criminal justice or security administration and management (1/77). *Version 2:* In the vocational certificate category, 2 semester hours in criminology (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in criminology (5/74); in the upper-division baccalaureate category, 2 semester hours in criminology (5/74).

DD-1728-0002

Information Security Management

Course Number: 5220.7.

Location: Defense Industrial Security Institute, Richmond, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 6/74–Present.

Objectives: To provide instruction on elements of the Defense Department Information Security Program, with particular emphasis on proper security classification and the safeguarding of classified information. Note: This course consists of two 1-week components, referred to separately as (1) Classification Management and (2) Safeguarding Classified Information. Recommended credit is for combined courses only.

Instruction: The security manager; organization for security; policies, objectives and management implementation; classification principles and problems; declassification and downgrading; markings and control of classified documents; communications security; automatic data-processing security; emergency planning; and processing security violations and compromises.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in criminal justice or security administration and management (1/77).

MC

MC-0419-0001

Basic Freight Operation

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 4 weeks (140 hours).

Exhibit Dates: 12/67–Present.

Objectives: To train enlisted personnel in all aspects of freight operation.

Instruction: Lectures and practical experience in the fundamentals of shipping and receiving; the capabilities of the transportation system; rules and regulations governing transportation; freight classification, regulation and storage; use of materials-handling equipment, including the forklift; use of the manual typewriter.

Credit Recommendation: In the vocational certificate category, 3 semester hours in freight handling (1/74).

MC-0419-0002

Motor Transport Maintenance Management

Course Number: None.

Location: Supply Center, Albany, GA.

Length: 12 weeks (363–447 hours).

Exhibit Dates: 9/68–12/74.

Objectives: To train enlisted personnel to supervise, manage, and operate a motor transport maintenance facility.

Instruction: Lectures and practical exercises in management principles; maintenance functions; basic shop sets; fuel and electric shop sets; recovery of vehicles, tankers, chassis, and power plants; and on-the-job repairs.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introduction to automotive shop practices (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to automotive shop practices, 6 in transportation management, 6 in truck driver training (4/74); in the upper-division baccalaureate category, 4 semester hours in transportation management (4/74).

MC-0419-0003

Motor Transport Officer

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC; Supply School, Cp. Lejeune, NC.

Length: 12–17 weeks (414–590 hours).

Exhibit Dates: 7/58–Present.

Objectives: To train enlisted personnel to inspect and supervise the servicing, repair, and maintenance of automotive vehicles.

Instruction: Lectures and practical exercises in combustion principles, electrical principles, hydraulic principles, lubrication and transmission of power, and the manufacture, maintenance, and repair of motor vehicles.

Credit Recommendation: In the vocational certificate category, 9 semester hours in automotive maintenance (7/74).

MC-0419-0004

Motor Transport Officer Leadership
(Motor Transport Officer Orientation)

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: *Version 1:* 7 weeks (198 hours). *Version 2:* 4–6 weeks (140–189 hours).

Exhibit Dates: *Version 1:* 7/74–Present. *Version 2:* 10/63–6/74.

Objectives: To train officers to manage motor transport operations.

Instruction: *Version 1:* Includes supervision of vehicle maintenance operations with respect to scheduling cleaning, lubrication, and inspection. Familiarization with compression ignition and spark ignition engines. *Version 2:* Lectures and practical exercises in the operation and management of motor transport facilities. Course includes engine fundamentals, electrical systems, power trains, fuel systems, and maintenance management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in automotive or heavy equipment maintenance management (4/76). *Version 2:* In the vocational certificate category, 2 semester hours in introduction to automotive or transportation technology (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to automotive or transportation technology (7/74); in the upper-division baccalaureate category, 2 semester hours in introduction to automotive or transportation technology (7/74).

MC-0602-0001

High Intensity Language Training (Vietnamese)

Course Number: None.

Location: Marine Corps Schools, Quantico, VA.

Length: 6 weeks (222 hours).

Exhibit Dates: 8/67–12/70.

Objectives: To prepare selected Marine Corps Educational Center graduates for duty in an area where the primary or secondary language is Vietnamese.

Instruction: Language patterns, lexical units, and fluency necessary to communicate effectively with a native speaker; background information on culture, history, and geography; development of a vocabulary for interaction in civic action programs and liaison.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in Vietnamese (12/68).

MC-0801-0001

Nuclear, Biological and Chemical (NBC) Warfare Defense

Course Number: None.

Location: Recruit Depot, Parris Island, SC.

Length: 3 weeks (105 hours).

Exhibit Dates: 1/63–12/68.

Objectives: To train personnel for NBC defense responsibilities and instructional duties.

Instruction: Lectures and practical exercises on NBC defense, including monitor and survey teams, decontamination squads, nuclear warfare defense, biological warfare defense, chemical warfare defense, radiac instruments, protection, training and operations, types of nuclear bursts and effects, shielding of gamma radiation, blister and nerve agents, smokes and incendiaries, new developments in NBC equipment, and chemical decontamination.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (12/68).

MC-0802-0001

1. Physical Training Instructor (Men)
2. Physical Training Instructor

Course Number: None.

Location: Development and Education Command, Quantico, VA.

Length: *Version 1:* 11 weeks (427 hours). *Version 2:* 13 weeks (528 hours).

Exhibit Dates: *Version 1:* 5/70–12/73. *Version 2:* 2/68–4/70.

Objectives: To train enlisted personnel as instructors for close-combat and physical training.

Instruction: Lectures and practical exercises in the skills necessary to be an instructor in combat and physical training. Course provides comprehensive classroom instruction, in structural and functional kinesiology, and the principles of physical training.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in anatomy and physiology, 2 in physical education, 2 in physical education methods (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy and physiology, 2 in physical education, 2 in physical education methods (7/74); in the upper-division baccalaureate category, credit in principles of physical training on the basis of institutional evaluation (12/68). *Version 2:* In the vocational certificate category, 4 semester hours in anatomy and physiology, 2 in physical education, 2 in physical education methods (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy and physiology, 2 in physical education, 2 in physical education methods (7/74); in the upper-division baccalaureate category, 2 semester hours in anatomy and physiology, 2 in principles of physical training (12/68).

MC-0802-0002

Survival, Evasion, Resistance to Interrogation and Escape (SERE)
(Evasion, Escape and Survival Training)

Course Number: None.

Location: Mountain Warfare Training Center, Bridgeport, CA.
Length: 4 weeks (169–172 hours).
Exhibit Dates: 5/59–12/68.
Objectives: To train personnel in the practical techniques of survival, escape, resistance to interrogation, and evasion.
Instruction: Lectures and practical exercises to include land navigation, physical preparation, Communist indoctrination and interrogation techniques, resistance to Communist interrogation techniques, and prisoner organization and resistance.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in woodcraft and survival training (5/74).

MC-0802-0003

AMMUNITION HANDLERS

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: 6 weeks (180 hours).
Exhibit Dates: 7/58–12/68.
Objectives: To train personnel to safely handle, store, transport, and dispose of ammunition.
Instruction: Lectures and practical exercises in small arms ammunition, hand and rifle grenades, artillery and mortar ammunition, pyrotechnics, demolitions, ground rockets and guided missiles, aircraft munitions, mines and firing devices, flamethrowers, fuels, ammunition disposal, ammunition storage and inspection, and renovation and malfunctions.
Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-0802-0004

AMMUNITION TECHNICIAN

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: 10 weeks (420 hours).
Exhibit Dates: 7/54–12/68.
Objectives: To train noncommissioned officers in ammunition techniques.
Instruction: Lectures and practical exercises in fundamentals of ammunition, small arms ammunition, artillery and mortar ammunition, demolitions, aircraft munitions, land mines and firing devices, ammunition ashore, ammunition supply administration, and field storage of ammunition.
Credit Recommendation: In the vocational certificate category, 6 semester hours in armorer/demolitions (7/74).

MC-0802-0005

AMMUNITION TECHNICIAN (ADVANCED)

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: 5–8 weeks (192–327 hours).
Exhibit Dates: 7/60–12/68.
Objectives: To train personnel to supervise and manage an ammunition storage and handling facility.
Instruction: Lectures and practical exercises in sources of technical information; ammunition principles; ammunition materiel; ammunition supply procedures and allowances; detection, protection, and decontamination; inspection, surveillance, storage, transportation and disposal of ammunition, military explosives, and toxic chemical agents; and planning, establishing, and operating an ammunition unit.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in chemical technology (5/74).

MC-0802-0006

AMMUNITION TECHNICIAN (BASIC)
(Ammunition Technician)

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: 5–9 weeks (192–360 hours).
Exhibit Dates: 7/57–Present.
Objectives: To train personnel in phases of ammunition handling.
Instruction: Lectures and practical exercises to include identification, reception, inspection, storage, transportation, and issuance of ammunition components, military explosives, and toxic chemical agents; disposal of unserviceable ammunition; ammunition identification and terminology; technical reference materials; supply procedures; computation of allowances; and decontamination procedures and equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in chemical technology (5/74).

MC-0803-0001

CLOSE COMBAT INSTRUCTOR

Course Number: None.
Location: Physical Fitness Academy, Quantico, VA.
Length: 3 weeks (110 hours).
Exhibit Dates: 12/68–12/73.
Objectives: To train Marine Corps personnel in close-combat tactics and techniques.
Instruction: Practical study in kinesiology and military combat techniques, martial sports, instructor training, individual conditioning, and armed and unarmed combat.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in physical education (2/74); in the upper-division baccalaureate category, 1 semester hour in physical education (2/74).

MC-0803-0002

WATER SAFETY/SURVIVAL INSTRUCTOR

Course Number: 562.
Location: Physical Fitness Academy, Education Center, Quantico, VA.
Length: 3 weeks (100 hours).
Exhibit Dates: 2/72–12/73.
Objectives: To qualify personnel as Marine Corps water survival instructors and American Red Cross water safety instructors.
Instruction: Lectures and practical exercises in safety procedures and problem areas, water survival skills, and teaching techniques.
Credit Recommendation: In the vocational certificate category, 1 semester hour in swimming, 1 in physical education (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in swimming, 1 in physical education; in the upper-division baccalaureate category, 1 semester hour in physical education (5/74).

MC-0803-0003

COLD WEATHER FIELD INDOCTRINATION
(Cold Weather Field Indoctrination Training for FMF Cadets and Reservists)

Course Number: None.
Location: Cold Weather Training Center, Bridgeport, CA.
Length: 3 weeks (130 hours).
Exhibit Dates: 1/59–12/68.
Objectives: To provide enlisted personnel with survival and combat training in deep snow and cold environments.
Instruction: Lectures and practical exercises in shelters and bivouacs, use of water and rations, over-snow movements, skiing, and pick-up operations.
Credit Recommendation: Credit is not recommended because of the military nature of the course (12/68).

MC-0803-0004

MOUNTAIN OPERATIONS (MILITARY SKIING)

Course Number: None.
Location: Mountain Warfare Training Center, Bridgeport, CA.
Length: 5 weeks (213 hours).
Exhibit Dates: 3/65–12/68.
Objectives: To train infantry units and reconnaissance personnel to operate in mountainous terrain.
Instruction: Lectures and practical exercises in physical training and conditioning, skiing, and equipment maintenance.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in camping and survival training (12/68).

MC-0803-0005

MOUNTAIN OPERATIONS (ROCK CLIMBING)

Course Number: None.
Location: Mountain Warfare Training Center, Bridgeport, CA.
Length: 7 weeks (283 hours).
Exhibit Dates: 3/65–12/68.
Objectives: To train infantry units and reconnaissance personnel to operate in mountainous terrain.
Instruction: Lectures and practical exercises in mountain operations, man packs, rocks and glacier characteristics, camp and bivouac selection, and mountain walking and route selection.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in camping and survival training (12/68).

MC-0804-0001

MARINE CORPS SPECIAL SERVICES TRAINING

Course Number: None.
Location: Development and Education Command, Quantico, VA.
Length: 2 weeks (52 hours).
Exhibit Dates: 9/72–Present.
Objectives: To train selected enlisted personnel to supervise recreational activities.
Instruction: Lectures and practical exercises in the administration of recreational activities and funds. Course includes acquisition and control of recreational facilities, property and funds; administration of insurance; and sports, entertainment, and other recreational programs.
Credit Recommendation: In the vocational certificate category, 1 semester hour in recreation administration (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in recreation administration (8/74).

MC-1205-0001

FIELD MUSIC

Course Number: None.

Location: Marine Corps Recruit Depot, Parris Island, SC; Marine Corps Recruit Depot, San Diego, CA.

Length: 12-16 weeks (480-626 hours).

Exhibit Dates: 1/59-12/68.

Objectives: To train music students in drum and bugle corps parade and ceremonial functions.

Instruction: Lectures on care of bugle and drum instruments; musical rudiments; bugle calls and techniques; music writing; drum techniques; history and duties of field music; bugle ensemble music; and practical exercises in bugle corps formations and ceremonies.

Credit Recommendation: In the vocational certificate category, credit in applied music on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in applied music (2/74).

MC-1205-0002

Drum and Bugle Corps

Course Number: None.

Location: Marine Corps Recruit Depot, Parris Island, SC.

Length: 12 weeks (426 hours).

Exhibit Dates: 1/73-Present.

Objectives: To train students as musicians in a drum and bugle corps.

Instruction: Lectures and practical applications in music theory, instrumental techniques, and drill procedures; maintenance of instruments; and writing of musical notations, scales, key signatures, and triads.

Credit Recommendation: In the vocational certificate category, credit in applied music on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in applied music (2/74).

MC-1401-0001

Subsistence Supply Man

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC.

Length: 5 weeks (161 hours).

Exhibit Dates: 4/73-Present.

Objectives: To provide personnel with training in food service accounting and control procedures.

Instruction: Lectures and practical exercises on subsistence supply accounting and general mess accounting, including office practices, learning the keyboard, Marine Corps directives system, calculator, subsistence accounting procedures, introduction to subsistence supply, establishment of financial status of mess and stock records, determination of requirements and requisitions subsistence operational analysis, general mess accounting and control procedures, and computation of rations and credits.

Credit Recommendation: In the vocational certificate category, 2 semester hours in clerical procedures, 3 in food cost control (7/77).

MC-1401-0002

Ground Supply Officer Leadership

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 13 weeks (430 hours).

Exhibit Dates: 7/74-Present.

Objectives: To provide personnel with knowledge required to operate as supervisors of unit level supply functions.

Instruction: Lectures and practical exercises in supply accounting, data processing, control procedures, Marine Corps directives, supply systems management, and service support leadership.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to data processing, 3 in supply management (7/77).

MC-1402-0001

Fundamentals of Digital Logic

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 1-3 weeks (35-117 hours). *Version 2:* 3 weeks (117 hours).

Exhibit Dates: *Version 1:* 10/68-10/75. *Version 2:* 1/66-9/68.

Objectives: To train personnel in the fundamental concepts of digital logic preparatory to further training in the maintenance of special devices.

Instruction: Lectures and practical exercises in the use of digital machines and devices in military applications; numbering systems; computer programming; fundamentals of logic design, including Boolean algebra, truth tables, and block symbolic diagrams; logic circuitry; characteristics of hardware and operations of magnetic drum, tape, disc, magnetic core, and other storage devices; analog-to-digital conversion.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in digital computer design (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer design (2/74); in the upper-division baccalaureate category, 2 semester hours in digital computer design (2/74). *Version 2:* In the vocational certificate category, 3 semester hours in digital computer design (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer design (2/74); in the upper-division baccalaureate category, 2 semester hours in digital logic (12/68).

MC-1402-0002

System Engineering

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 12 weeks (384 hours).

Exhibit Dates: 1/72-Present.

Objectives: To train noncommissioned officers in the programming and operation of an IBM System 360.

Instruction: Practical exercises and lectures on operation of System 360 family of computers; access methods; service and utility programs; assembler language coding; COBOL programming; job control language; FORTRAN IV; OS operations training; and data communications and management systems analysis and design.

Credit Recommendation: In the vocational certificate category, 8 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 8 semester hours in computer programming (2/74).

MC-1402-0003

Systems Analysis and Design

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 7-8 weeks (182-203 hours).

Exhibit Dates: 3/71-Present.

Objectives: To provide experienced programmers with a detailed understanding of systems analysis and design.

Instruction: Lectures and supervised study in system planning and design; methods and procedures of determining system requirements; input/output capabilities, available operating systems, and file design of IBM 360; system design; implementation, re-evaluation and follow-up procedures for new systems; documentation standards and techniques; and case study projects.

Credit Recommendation: In the vocational certificate category, 4 semester hours in business systems analysis (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in business systems analysis (2/74); in the upper-division baccalaureate category, 4 semester hours in business systems analysis (2/74).

MC-1402-0004

Operating System Programming
(Disk Operating System Programming)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 2-12 weeks (126-833 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train personnel having no prior data processing experience to operate and program disk computer systems.

Instruction: Practical exercises and lectures on fundamentals of programming and computing systems; introduction to System 360; DOS concepts and facilities; assembler language coding; DOS I/O coding; COBOL language; programming workshop; and electrical accounting machine operations.

Credit Recommendation: In the vocational certificate category, 8 semester hours in computer programming, 4 in computer operations, 2 in data processing (2/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in computer programming, 4 in computer operations, 2 in data processing (2/74); in the upper-division baccalaureate category, 5 semester hours in computer programming (12/68).

MC-1402-0005

System 360 Operating System—Core Phase

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 102 hours.

Exhibit Dates: 9/71-7/73.

Objectives: To provide enlisted personnel with introductory training in data processing.

Instruction: Lectures and practical exercises in punched card accounting, data processing fundamentals, System/360 operating systems, job control language, and utility programs.

Credit Recommendation: In the vocational certificate category, 2 semester hours in data processing principles (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (2/74); in the upper-division baccalaureate category, 2 semester hours in data processing principles (2/74).

MC-1402-0006

SYSTEM 360 OPERATING SYSTEM—OPERATIONS PHASE

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 99 hours.

Exhibit Dates: 9/71–7/73.

Objectives: To train enlisted personnel as System/360 operating system computer operators.

Instruction: Lectures and practical exercises in utility programs, input/output storage devices, operator commands and statements, and machine room procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in computer operations (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations (2/74); in the upper-division baccalaureate category, 2 semester hours in computer operations (2/74).

MC-1402-0007

SYSTEM 360 OPERATING SYSTEM—COBOL PROGRAMMING PHASE

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 123 hours.

Exhibit Dates: 9/71–7/73.

Objectives: To train enlisted personnel to write and debug COBOL programs.

Instruction: Lectures and practical exercises in file organization, common business oriented language instructions, and standardized documentation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

MC-1402-0008

SYSTEM 360 OPERATING SYSTEM—ASSEMBLER LANGUAGE PROGRAMMING PHASE

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 123 hours.

Exhibit Dates: 9/71–7/73.

Objectives: To train enlisted personnel as System/360 assembler language programmers.

Instruction: Lectures and practical exercises in data management facilities, file organization, access methods, service programs, assembler language coding instructions, and debugging methods.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

MC-1402-0009

SYSTEM 360 OPERATING SYSTEM—1401 PROGRAMMING

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 152 hours.

Exhibit Dates: 9/71–7/73.

Objectives: To train enlisted personnel to program IBM 1401 computers, using assembler languages.

Instruction: Lectures and practical exercises in symbolic programming languages, autocoder programming languages, and standardized documentation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

MC-1402-0010

SYSTEMS ANALYSIS AND DESIGN (FUNCTIONAL)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 4 weeks (109–117 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train officers in the methodology of systems analysis and design.

Instruction: Lectures in systems theory, system model usage, systems approach in systems development, computer systems components, number systems, data communications concepts, flow charting, systems documentation and security, and management science techniques.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in systems analysis (6/75).

MC-1402-0011

IBM SYSTEM 360 (DOS) COBOL PROGRAMMING

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 9 weeks (258–310 hours).

Exhibit Dates: 8/73–Present.

Objectives: To train enlisted personnel as COBOL application programmers on the IBM disk operating system.

Instruction: Lectures on computer fundamentals, including a detailed examination of IBM operating systems and job control language; COBOL programming with American National Standard (ANS) for IBM System/360 including the sort verb and disk operating systems; and data management system (Mark IV). Coding convention differences between DOS COBOL and OS COBOL and operating systems are covered. Major programs are written, debugged, and documented.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in computer programming, 1 in data processing fundamentals, 1 in computer operating systems (6/75).

MC-1402-0012

OPTICAL CHARACTER RECOGNITION (OCR) OPERATIONS

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 2 weeks (45–60 hours).

Exhibit Dates: 6/74–Present.

Objectives: To train enlisted personnel to operate optical character recognition systems.

Instruction: Lectures and practical exercises in data processing introduction, Hollerith punch card code, flow charting, number systems, features and functions of the 3030 page reader, the 6200 computer, and the Lundy Farrington Optical Character reader, central processing unit operation, console typewriter, tape drives, scanner unit operating techniques, and Optical Program for Users System (OPUS) operation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in unit record data processing (6/75).

MC-1402-0013

IBM SYSTEM 360 (OS) COBOL PROGRAMMING

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: *Version 1:* Self-paced 8 weeks (287 hours). *Version 2:* 8 weeks (228–280 hours).

Exhibit Dates: *Version 1:* 6/75–Present. *Version 2:* 8/73–5/75.

Objectives: To train enlisted personnel as COBOL application programmers on the IBM System/360.

Instruction: *All Versions:* Lectures and practical exercises on American National Standard COBOL including the sort verb, computer programming introduction, IBM S/360 computer concepts, programming techniques, COBOL coding, documentation conventions, IBM Operating System (OS) programming, job control language, and testing and debugging techniques. *Version 1:* Version is self-paced and uses structural approach to COBOL programming. Also covers ISAM file organization and OS system utilities.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in computer programming, 1 in data processing (12/77). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in computer programming, 1 in data processing fundamentals (6/75).

MC-1402-0014

AUTOMATIC DATA PROCESSING (ADP) ORIENTATION

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 2 weeks (53–65 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train officers in systems analysis, automatic data processing equipment operation, and automated information systems management.

Instruction: Lectures in computer system fundamentals, information system development, interactive terminal facility usage, BASIC language and programming, remote teletype terminals usage, effective communication, ADP organization and systems, hardware components, logical problem-solving methods and classical scientific management tools and techniques, and information system development.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in data processing fundamentals (6/75).

MC-1402-0015

SYSTEMS PROGRAMMING

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 7 weeks (141 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train experienced assemblers, or COBOL programmers who have a firm understanding of operating systems to be IBM S/360 Operating System (OS) and HASP system programmers.

Instruction: Lectures and hands-on applications in computer operations (OS), utilities, job/task/data management, writing system routines, generating an IBM S/360 operating system, system routine programming, computer system performance measurement, reference manual maintenance, and IBM S/360 computer system briefings and instructions. Students generate both MFT and MVT environments and write routines to maintain system supervisor and overall system performance.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in operating systems (6/75).

MC-1402-0016

Programming for Optical Character Recognition (OCR) System

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 5 weeks (136 hours).

Exhibit Dates: 6/74–Present.

Objectives: To train enlisted personnel as application programmers for the Lundy/Farrington 3030 optical character recognition system.

Instruction: Lectures and practical exercises in optical character recognition system development; forms design, form specification, and system overview; L/F 3030 OCR system operating principles and peripheral devices; OCR instruction coding; octal numbering system; program maintenance; and 3030 reader control program standard sequences and modification methods for the programmers application.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (4/74).

MC-1402-0017

Data Systems (Enlisted)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 7 weeks (192 hours).

Exhibit Dates: 9/70–Present.

Objectives: To provide operators and programmers with advanced technical training in data processing.

Instruction: Lectures and practical exercises in IBM S/360 hardware; S/360 operating system organization and functions; operating system job control language coding; programming with COBOL, FORTRAN, and BASIC languages; performance evaluation and job-scheduling techniques; and analysis, design, and operation of a data communications-oriented computer system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming, 1 in teleprocessing (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming, 1 in teleprocessing (4/74); in the upper-division baccalaureate category, 3 semester hours in computer programming, 1 in teleprocessing (4/74).

MC-1402-0018

IBM System 360 Disk Operating System (DOS) Operations

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 6 weeks (167–168 hours).

Exhibit Dates: 8/73–Present.

Objectives: To train enlisted personnel to operate computers.

Instruction: Lectures and practical exercises in data processing fundamentals, central processing unit operation, and IBM/360 peripheral equipment operation, with emphasis on operator commands associated with the S/360 operating system under HASP and disk operating system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations, 1 in data processing fundamentals (6/75).

MC-1402-0019

Electrical Accounting Machines (EAM)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 8/73–12/74.

Objectives: To train enlisted personnel to operate unit record equipment.

Instruction: Lectures and practical exercises in data processing introduction, Hollerith card code, 029 card punch, 059 card verifier, 083/084 sorters, 557 interpreter operation and wiring, 517 reproducer and 088 collator operation procedures, and data processing installation orientation and management responsibilities.

Credit Recommendation: In the vocational certificate category, 2 semester hours in unit record data processing (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in unit record data processing (4/74).

MC-1402-0020

1. Data Processing Installation Management Seminar
2. Data Processing Installation Managers Seminar
3. Data Processing Installation Management

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: *Version 1:* Self-paced 4 weeks (95–126 hours). *Version 2:* 4 weeks (95–126 hours). *Version 3:* 4 weeks (95–126 hours).

Exhibit Dates: *Version 1:* 1/77–Present. *Version 2:* 7/74–12/76. *Version 3:* 9/70–6/74.

Objectives: To educate data processing personnel in the supervisory and management concepts and skills required to manage a data processing installation.

Instruction: *Version 1:* Lectures and practical exercises in a broad spectrum of fiscal, administrative, personnel and logistical management techniques as applied to data processing installation management. Zero-based budgeting is included. *Version 2:* Lectures and practical exercises in data processing equipment management, production management, installation security, standards and installation planning, administrative procedures (including reporting requirements) and management control techniques. *Version 3:* Lectures and practical exercises in data processing equipment management, production management, installation security, standards and installation planning, administrative procedures (including reporting requirements), and management control techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in data processing management (12/77). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in data processing management (6/75). *Version 3:* In the vocational certificate category, 3 semester hours in data processing management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in data processing management (7/74); in the upper-division baccalaureate category, 3 semester hours in data processing management (7/74).

MC-1402-0021

Advanced Data Systems Officer

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 12 weeks (296 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train experienced systems analysts to manage data processing installations.

Instruction: Lectures and practical exercises in digital computer systems hardware and software requirements, real-time computer systems characteristics, and information systems development, Mk IV language, and IBM/360 system operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in data processing management (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in data processing management (4/74); in the upper-division baccalaureate category, 4 semester hours in data processing management (4/74).

MC-1402-0022

Advanced Operations Techniques

(IBM System 360 (OS) Advanced Operations Techniques)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 6 weeks (196–201 hours).

Exhibit Dates: 5/74–Present.

Objectives: To train computer operators to control and operate an IBM S/360 multiprogramming environment running under the OS-operating system and to provide an understanding of COBOL programming problems and techniques.

Instruction: Lectures and practical exercises in S/360 operating system with HASP and standard utility programs, system job control language detailed study, multisystems operation techniques and production scheduling, data processing resources management, and COBOL programming introduction, with emphasis on reading core dumps of abnormally terminated jobs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations (6/75); in the upper-division baccalaureate category, 2 semester hours in computer programming (6/75).

MC-1402-0023

IBM System 360 Operating System (OS) Operations

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 4–5 weeks (132–141 hours).

Exhibit Dates: 8/73–Present.

Objectives: To train enlisted personnel to operate the IBM system 360 computer running under the Operating System (OS).

Instruction: Lectures and practical exercises in Hollerith punch card code, flow charting, number systems, IBM System 360 OS job control language (JCL), computer organization channel concepts, control units, IBM System 360/2040 central processing unit, IBM 1040 console typewriter, IBM 1403 printer, IBM 2540 card reader/punch, Calcomp CD12 disk drives, IBM 2420 tape drives, IBM System 360 OS initial program load (IPL) procedures, operator commands, and statements for the Operating System (OS) and HASP.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in computer operations, 1 in data processing fundamentals (12/77).

MC-1402-0024

IBM System 360 (OS) Advanced Programming Techniques)
(Advanced Programming Techniques)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 8 weeks (219–229 hours).

Exhibit Dates: *Version 1:* 1/76–Present. *Version 2:* 6/74–12/75.

Objectives: To train experienced COBOL programmers to write programs in IBM S/360 (OS) assembler language.

Instruction: *Version 1:* Lectures and practical exercises in advanced systems of American National Standard (ANSI) COBOL, debugging utilizing system dumps, IBM 360 operating system (OS), utilities, job control language (JCL), structured approach to programming, and introduction to systems analysis and design. *Version 2:* Lectures and practical exercises in IBM S/360 Operating System (OS) assembler language, IBM S/360 Operating System (OS) and job control language, COBOL language and MARK IV file management system techniques, and data management facilities usage.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in advanced computer programming, 2 in systems analysis and design (12/77). *Version 2:* In the upper-division baccalaureate category, 5 semester hours in computer programming (6/75).

MC-1402-0025

Data Systems Officers
(Data Systems Officer)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: *Version 1:* 13 weeks (461 hours). *Version 2:* 13 weeks (366–368 hours).

Exhibit Dates: *Version 1:* 1/77–Present. *Version 2:* 9/70–12/76.

Objectives: To provide officers with technical data processing training primarily in the area of computer programming.

Instruction: *Version 1:* Lectures and practical exercises in data processing fundamentals, COBOL, Mark IV, job control language (JCL), file management and sequential, indexed sequential, and direct-access storage methods. Course includes systems analysis and design and core dump reading in conjunction with COBOL programming. *Version 2:* Lectures and practical exercises in data processing fundamentals, Basic Assembler Language (BAL), COBOL, FORTRAN, MARK IV, job control language (JCL), file management, and sequential, indexed sequential, and direct-access storage methods.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 5 semester hours in computer programming, 3 in systems analysis and design (12/77). *Version 2:* In the upper-division baccalaureate category, 8 semester hours in computer programming (6/75).

MC-1402-0026

Fiscal Accounting Clerk

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 9 weeks (255 hours).

Exhibit Dates: 7/75–Present.

Objectives: To train officers and enlisted personnel in accounting skills and the application of these skills to a mechanized accounting system.

Instruction: Lectures, demonstrations, and illustrative problems in basic accounting procedures required to provide the student with a working knowledge of formal mechanized accounting techniques and their application to a computer system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in bookkeeping (7/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to data processing (7/77).

MC-1402-0027

Advanced Mark IV File Management System
(Advanced Mark IV)

Course Number: None.

Location: Computer Science School, Quantico, VA.

Length: Self-paced 2 weeks (60–80 hours).

Exhibit Dates: 7/74–Present.

Objectives: To train Mark IV programmers to utilize the advanced features of the Mark IV information retrieval and reporting language.

Instruction: Lectures and practical exercises involving table look-up techniques, file indexing, access methods, file management, and data retrieval and reporting. Self-paced study teaches the special features of Mark IV which include extended segment processing, extended reporting, file processing, coordinated files, text processing, transaction processing and hierarchical record structure processing.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in computer programming (12/77).

MC-1402-0028

Marine Corps Integrated Maintenance Management (Officer)

Course Number: None.

Location: Supply Center, Albany, GA.

Length: 6 weeks (238 hours).

Exhibit Dates: 2/75–Present.

Objectives: To train selected officers for the administration and management of maintenance management billets.

Instruction: Lectures and practical exercises in maintenance management information systems, maintenance records, production and resources, supply support, leadership and management, and Marine Corps procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic data processing (6/75).

MC-1402-0029

IBM System 360 OS COBOL Language (Entry-Level)

Course Number: 5OZX5141-1.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 8 weeks (287 hours).

Exhibit Dates: 4/75–Present.

Objectives: To provide technical education to entry-level personnel in the basis concepts of data processing and the COBOL language.

Instruction: Self-paced course using the structural approach to COBOL programming. Course covers ISAM file organization and OS system utilities.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in computer programming, 1 in data processing fundamentals (12/77).

MC-1402-0030

IBM System 360 OS Programming

Course Number: 5OZX5144-2.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 10 weeks (385 hours).

Exhibit Dates: 9/74–Present.

Objectives: To provide technical education for personnel to prepare them for duties as an IBM System 360 OS ALC programmer and entry-level systems programmer.

Instruction: Course consists of IBM System 360 (OS) Advanced Coding (5OZX5144-14) (see exhibit MC-1402-0037), IBM System 360 OS Assembler Language (5OZX5144-3) (see exhibit MC-1402-0031), IBM System 360 OS System Control (5OZX5144-5) (see exhibit MC-1402-0033) and IBM System 360 (OS) Data Management (5OZX5144-16) (see exhibit MC-1402-0039).

Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in computer programming, 2 in advanced computer programming, 1 in operating systems (12/77).

MC-1402-0031

IBM System 360 OS Assembler Language

Course Number: 5OZX5144-3; 50ZX5144-8.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 4 weeks (162 hours).

Exhibit Dates: 9/74–Present.

Objectives: To train experienced students to code in Basic Assembler Language (BAL).

Instruction: The self-paced course includes practical exercises encompassing all phases of BAL coding, including fixed and floating point instructions. Subprogram linkage and macros are also discussed. A variety of problem applications are written, coded, and debugged.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in computer programming (12/77).

MC-1402-0032

IBM System 360 OS Systems Programming

Course Number: 5OZX5144-4.
Location: Computer Sciences School, Quantico, VA.
Length: Self-paced 6 weeks (223 hours).
Exhibit Dates: 9/74–Present.
Objectives: To provide technical education to personnel trained in System 360 Assembler Language to prepare them for duties as an entry-level systems programmer.
Instruction: Course consists of IBM System 360 (OS) Advanced Coding (5OZX5144-14) (see exhibit MC-1402-0037), IBM System 360 OS System Control (5OZX5144-5) (see exhibit MC-1402-0033) and IBM System 360 (OS) Data Management (5OZX5144-16) (see exhibit MC-1402-0039).
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in operating systems, 1 in computer programming, 2 in advanced computer programming (12/77).

MC-1402-0033

IBM System 360 OS System Control

Course Number: 5OZX5144-5.
Location: Computer Sciences School, Quantico, VA.
Length: Self-paced 2 weeks (81 hours).
Exhibit Dates: 9/74–Present.
Objectives: To train programmers in the use of Job Control Language and selected utility programs for an IBM System 360 operating system (OS).
Instruction: A self-paced course requiring practical exercises in the use of IBM System 360 Job Control Language and utility programs. Course includes load modules, creation, retrieval and concatenation of cataloged data sets, use of linkage editor, and overlay features.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in advanced computer programming (12/77).

MC-1402-0034

IBM System 360 OS FORTRAN Programming

Course Number: 5OZX5144-6.
Location: Computer Sciences School, Quantico, VA.
Length: Self-paced 2 weeks (90 hours).
Exhibit Dates: 9/74–Present.
Objectives: To train students with a programming background in the uses of the FORTRAN programming languages.
Instruction: A self-paced course requiring practical exercises in coding, debugging and executing application programs using the FORTRAN programming language. Course includes the use of arrays, input-output operations, subprogram linkage, and processing of sequential and direct-access data sets.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (12/77).

MC-1402-0035

IBM System 360 OS PL/1 Programming

Course Number: 5OZX5144-7.
Location: Computer Sciences School, Quantico, VA.
Length: Self-paced 3 weeks (135 hours).
Exhibit Dates: 9/74–Present.
Objectives: To train students to program in PL/1 as a second language.
Instruction: A self-paced course requiring practical exercises involving arithmetic expressions, constants, logical operations, arrays and DO loops, fixed-point expressions, structures, built-in functions, stream and record oriented I/O, and indexed sequential file handling.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer programming (12/77).

MC-1402-0036

IBM System 360 OS COBOL Programming

Course Number: 5OZX5144-8.
Location: Computer Sciences School, Quantico, VA.
Length: Self-paced 2 weeks (90 hours).
Exhibit Dates: 9/74–Present.
Objectives: To train students with a programming background to program in COBOL.
Instruction: Self-paced course requiring practical exercises involving coding, debugging, and executing COBOL programs. Course includes sequential as well as indexed sequential file access methods, subprogram linkage, sequential file updating and edited report output.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer programming (12/77).

MC-1402-0037

IBM System 360 (OS) Advanced Coding

Course Number: 5OZX5144-14.
Location: Computer Sciences School, Quantico, VA.
Length: Self-paced 2 weeks (72 hours).
Exhibit Dates: 9/74–Present.
Objectives: To train students to handle IBM System 360 operating system data management, task management, and system generation.
Instruction: A self-paced course requiring practical exercises involving the handling of load modules, channel programming, task management, concurrent processing and system generation concepts and procedures.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in operating systems (12/77).

MC-1402-0038

IBM System 360 OS System Control and Data Management

Course Number: 5OZX5144-15.
Location: Computer Sciences School, Quantico, VA.
Length: Self-paced 4 weeks (151 hours).
Exhibit Dates: 9/74–Present.
Objectives: To provide technical education in IBM System 360 OS system control and data management.
Instruction: Course consists of IBM System 360 OS System Control (5OZX5144-5) (see exhibit MC-1402-0033) and IBM System 360 (OS) Data Management (5OZX5144-16) (see exhibit MC-1402-0039).
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in computer programming, 2 in advanced computer programming (12/77).

MC-1402-0039

IBM System 360 (OS) Data Management

Course Number: 5OZX5144-16.
Location: Computer Sciences School, Quantico, VA.
Length: Self-paced 2 weeks (70 hours).
Exhibit Dates: 9/74–Present.
Objectives: To provide technical education to experienced programmers in the specialized area of data management access methods using assembler language.
Instruction: A self-paced course of instruction to train programmers in the specific use of IBM file organization and access methods. Included are assembler program exercises using QSAM, BSAM, BPAM, BISAM, QISAM, and BDAM access methods.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in computer programming (12/77).

MC-1402-0040

Marine Assembler Language Programming

Course Number: 5OZX5144-17.
Location: Computer Sciences School, Quantico, VA.
Length: Self-paced 8 weeks (313 hours).
Exhibit Dates: 9/74–Present.
Objectives: To provide technical education to experienced programmers in assembler language.
Instruction: Course consists of IBM System 360 OS Assembler Language (5OZX5144-3) (see exhibit MC-1402-0031), IBM System 360 OS System Control (5OZX5144-5) (see exhibit MC-1402-0033), and IBM System 360 (OS) Data Management (5OZX5144-16) (see exhibit MC-1402-0039).
Credit Recommendation: In the upper-division baccalaureate category, 5 semester hours in computer programming, 2 in advanced computer programming (12/77).

MC-1402-0041

IBM System 360 (OS) Systems Programmer

Course Number: 5OZX5144-19.
Location: Computer Sciences School, Quantico, VA.
Length: 9 weeks (130 hours).
Exhibit Dates: 6/75–Present.
Objectives: To train experienced programmers in the system programming functions required to generate and maintain an IBM System 360 operating system with HASP.
Instruction: Lecture, practical exercises, and hands-on applications in computer operations (OS), system generation, system programming, computer system performance evaluation and tuning, catalog and library management, and teleprocessing application.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in operating systems (12/77).

MC-1402-0042

IBM System 360 (OS) Data Control Techniques

Course Number: None.
Location: Computer Sciences School, Quantico, VA.
Length: 6 weeks (180 hours).
Exhibit Dates: 8/75–Present.
Objectives: To train enlisted personnel in data control techniques to prepare them as data controllers for the IBM System 360 computer system utilizing HASP.
Instruction: Lectures and practical exercises designed to provide operations personnel with working knowledge of IBM System 360 Job Control Language (JCL), utilities, and HASP capabilities. Included are cataloging in-stream procedures, updat-

ing system catalog, restart procedures, optimization of buffering and blocking of core storage and disk, disk space calculations, and core dump readings.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in computer programming (12/77).

MC-1402-0043

IBM SYSTEM 360 OS FORTRAN IV LANGUAGE (ENTRY-LEVEL)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: Self-paced 8 weeks (320 hours).

Exhibit Dates: 4/75–Present.

Objectives: To train entry-level data processing students as FORTRAN programmers on the IBM System 360.

Instruction: A self-paced course requiring practical exercises in coding, debugging, and executing application programs using the FORTRAN programming language. Course includes an introduction to data processing concepts and hardware, flowcharting and problem solution, compiler principles and FORTRAN coding conventions. Use of arrays, input-output operations, subprograms linkage, and processing of direct-access data sets are covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to data processing (12/77); in the upper-division baccalaureate category, 4 semester hours in computer programming (12/77).

MC-1402-0044

AUTOMATIC DATA PROCESSING (ADP) ORIENTATION (7E)

Course Number: None.

Location: Computer Sciences School, Quantico, VA.

Length: 2 weeks (51–57 hours).

Exhibit Dates: 1/75–Present.

Objectives: To familiarize students with principles, methods, and techniques of data processing and to reinforce these principles through problem-solving programming assignments.

Instruction: Lectures and problem-solving exercises involving BASIC and MARK IV programming languages to introduce principles, methods, and techniques of data processing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of data processing (12/77).

MC-1402-0045

TACTICAL GENERAL PURPOSE COMPUTER TECHNICIAN

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA.

Length: 26 weeks (960 hours).

Exhibit Dates: 1/79–Present.

Objectives: To train enlisted personnel to install, inspect, test, and repair tactical general purpose computers and assorted peripheral equipment.

Instruction: Lectures and practical exercises in binary operations and basic digital computer theory. Applications to the CP808 computer, the OJ-65 I/O console, the AN/UYK-7 computer, the AN/UYK-20 and the RD-358.

Credit Recommendation: In the vocational certificate category, 9 semester hours in computer systems (3/79); In the lower-division baccalaureate/associate degree category, 3 semester hours in computer software, 3 in computer systems at the engineering or engineering technology level (3/79).

MC-1403-0001

UNIT DIARY CLERK

Course Number: None.

Location: *Version 1:* Schools Battalion, Cp. Pendleton, CA. *Version 2:* Recruit Depot, Parris Island, SC.

Length: 4–5 weeks (142–182 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train enlisted personnel to prepare unit diaries.

Instruction: Lectures and practical exercises in assembling source material; drafting; typing; auditing quality control systems; and certifying and distributing the unit diary.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

MC-1403-0002

ADMINISTRATIVE CLERK

Course Number: None.

Location: Personnel Administration School, Cp. Pendleton, CA; Schools Battalion, Parris Island, SC.

Length: 3 weeks (112–119 hours).

Exhibit Dates: 7/73–Present.

Objectives: To train selected personnel in the fundamentals of personnel administration.

Instruction: Practical exercises in typing, filing, and correspondence.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in typing and office procedures (8/77).

MC-1403-0003

PERSONAL FINANCIAL RECORDS CLERK
(Basic Disbursing Clerk)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 6–8 weeks (177–249 hours).

Exhibit Dates: 9/65–Present.

Objectives: To train enlisted personnel in the basic concepts, fundamentals, and principles of payroll disbursing including typing and necessary clerical procedures.

Instruction: Practical experience in disbursing, military pay records, correspondence, and office machines.

Credit Recommendation: In the vocational certificate category, 2 semester hours in personal typing, 2 in clerical procedures (7/77).

MC-1403-0005

BASIC TRAVEL CLERK

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 5–7 weeks (122–193 hours).

Exhibit Dates: 7/74–Present.

Objectives: To provide enlisted personnel with instruction in basic travel procedures and to provide the clerical experiences necessary to insure conformance to travel regulations.

Instruction: Practical exercises and experiences in preparing travel vouchers and related data, including basic mathematical computations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/77).

MC-1404-0001

TELETYPE OPERATOR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 8 weeks (280 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train sergeants and enlisted personnel to operate teletypewriter sets and associated equipment.

Instruction: Lectures and practical exercises in teletypewriter operation, including touch-typing, teletype procedures and operations, teletype associated equipment operation, and communication center operations and procedures.

Credit Recommendation: In the vocational certificate category, credit in typing and teletype operation on the basis of institutional evaluation (3/74).

MC-1405-0001

AVIATION SUPPLY ENLISTED COURSE

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 5 weeks (147 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To provide supply specialists with intermediate-level training in aviation supply administration.

Instruction: Lectures on supply management, office machines, office procedures, procurement, storage operations, and supply in marine aviation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in supply management (2/74); in the upper-division baccalaureate category, 1 semester hour in supply management (2/74).

MC-1405-0002

WAREHOUSING NONCOMMISSIONED OFFICER (NCO) LEADERSHIP
(Warehousing NCO Leadership)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 5 weeks (144 hours).

Exhibit Dates: 7/74–Present.

Objectives: To provide the formal training required for corporals and gunnery sergeants to effectively perform the duties of a warehouse chief within a garrison or field warehousing operation.

Instruction: Lectures, performances, and demonstrations to provide formal training in all aspects of warehousing operations. Fundamentals of shipping, packing, space utilization, materials handling, transportation, and inventory control are covered.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/77).

MC-1405-0003

PERSONNEL CLERK

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA; Headquarters Battalion, Parris Island, SC.

Length: 4–5 weeks (136–180 hours).

Exhibit Dates: 7/72–Present.

Objectives: To train enlisted personnel to maintain personnel records.

Instruction: Lectures and practical exercises in preparing and updating personnel records, gathering source documents, and preparing and typing individual pay forms.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

MC-1405-0004

BASIC SUPPLY FUNDAMENTALS (MANUAL)
(Basic Supply Administration)

Course Number: None.
Location: Service Support School, Cp. Lejeune, NC.
Length: 4-6 weeks (105-195 hours).
Exhibit Dates: 5/65-Present.
Objectives: To train supply clerks in the basic and technical procedures of filling organic supply billets.
Instruction: Practical experience in operation and maintenance of office machines and in accounting procedures; lectures in naval correspondence.
Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

MC-1405-0005

1. BASIC SUPPLY ADMINISTRATION (MECHANIZED)
2. SUPPLY ADMINISTRATION (Advanced Supply Administration)

Course Number: None.
Location: Supply School, Cp. Lejeune, NC.
Length: *Version 1:* 5-6 weeks (137-202 hours). *Version 2:* 12-16 weeks (341-550 hours).
Exhibit Dates: *Version 1:* 7/70-Present. *Version 2:* 12/59-6/70.
Objectives: To train enlisted personnel in supply administration.
Instruction: *Version 1:* Lectures and practical exercises in correspondence and typing, publications, allowances, requisitioning procedures, and mechanized accounting procedures. *Version 2:* Lectures and practical exercises in accounting principles, procurement, transportation, warehousing, property control, and supply operations.
Credit Recommendation: *Version 1:* No credit because of the military nature of the course (6/74). *Version 2:* In the vocational certificate category, 3 semester hours in materials management (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in materials management (6/74); in the upper-division baccalaureate category, 6 semester hours in supply management (12/68).

MC-1405-0006

SUPPLY NONCOMMISSIONED OFFICER (NCO) LEADERSHIP

Course Number: None.
Location: Service Support Schools, Cp. Lejeune, NC.
Length: 9 weeks (294 hours).
Exhibit Dates: 9/73-Present.
Objectives: To train supply noncommissioned officers to perform as supply administration chiefs in manual and fleet stock accounts as they relate to Marine Corps applications.
Instruction: Lectures and practical exercises in the duties of supply administration chiefs, including NCO service support leadership, publications and allowances, review of manual supply technical behaviors, manual supply NCO leadership and technical behaviors, supply leadership and technical behaviors incident to professional growth and development, mechanized supply technical behaviors within the FSA, and SASSY operating procedures.
Credit Recommendation: Credit is not recommended because of the military nature of the course (6/74).

MC-1405-0007

COMMUNICATION OFFICER

Course Number: None.
Location: *Version 1:* Communication Officers School, Quantico, VA. *Version 2:* Development and Education Command, Quantico, VA. *Version 3:* Marine Corps School, Quantico, VA. *Version 4:* Marine Corps School, Quantico, VA.
Length: *Version 1:* 29-32 weeks (685-694 hours). *Version 2:* 28-29 weeks (670-707 hours). *Version 3:* 28-30 weeks (729-755 hours). *Version 4:* 25-30 weeks (672-757 hours).
Exhibit Dates: *Version 1:* 1/72-Present. *Version 2:* 2/69-12/71. *Version 3:* 2/63-1/69. *Version 4:* 7/55-1/63.
Objectives: To train officers to be communications officers.
Instruction: *All Versions:* Lectures and practical exercises in communications operations, including organization, tactics, and amphibious operations. *Version 1:* Instruction includes electronics, management, mathematics, computer science, telecommunications, and operational communications. *Version 2:* Instruction includes general communications, ground and aviation unit communication, effective language, communications center organization and operation, radio theory, and communication procedures and equipment. *Version 3:* Instruction includes general communications, ground and aviation unit communication, effective language, communications center organization and operation, radio theory, and communication procedures and equipment. *Version 4:* Instruction includes general communications; ground and aviation unit communciation; message preparation, processing, and handling; cryptography; radio, radio relay, wire, and teletype communciations; theory of electricity; and visual, sound, and miscellaneous communications.
Credit Recommendation: *Version 1:* Credit is not recommended because of the limited specialized nature of the course (6/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in communications center organization and management (12/68). *Version 3:* In the upper-division baccalaureate category, 6 semester hours in communications center organization and management, 3 in French or Spanish (12/68). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in communication center organization and management (12/68).

MC-1405-0008

BASIC SUPPLY ADMINISTRATION (MECHANIZED)

Course Number: None.
Location: Supply Schools, Cp. Lejeune, NC.
Length: 9 weeks (288 hours).
Exhibit Dates: 4/67-12/68.
Objectives: To provide enlisted personnel with the basic skills required for duty as administrative supply clerks.
Instruction: Lectures and practical exercises in the operation of typewriters and calculators, preparation of naval correspondence, use of supply publications, computation of allowances, organic property control procedures, and mechanized supply operations.
Credit Recommendation: In the upper-division baccalaureate category, credit in supply procedures on the basis of institutional evaluation (12/68).

MC-1405-0009

ORDNANCE CHIEF

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: 8 weeks (280 hours).
Exhibit Dates: 2/67-12/74.
Objectives: To train noncommissioned officers in the supervision, management, and administration of ordnance operations.
Instruction: Lectures and practical exercises in the supervision, management and administration of ordnance operations, including ordnance management, machine shops, tracked vehicles, artillery weapons, infantry weapons, ammunition, optical equipment, ordnance staff functions, and management of a garrison.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in management principles of supply and maintenance (12/68).

MC-1405-0010

SPECIAL SUPPLY ORIENTATION

Course Number: None.
Location: Supply School, Cp. Lejeune, NC.
Length: 4 weeks (140 hours).
Exhibit Dates: 1/58-12/68.
Objectives: To train newly selected supply officers to manage supply functions and operations.
Instruction: Lectures and practical exercises in the management of supply operations. Course includes a review of the principle elements of the supply system: acquisition and distribution, cataloguing, planning and programming, budgeting and disbursement, inventory management, and direct support of military operations.
Credit Recommendation: In the vocational certificate category, 1 semester hour in supply management (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in supply management (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

MC-1405-0011

SUPPLY CHIEF LEADERSHIP

Course Number: None.
Location: Service Support School, Cp. Lejeune, NC.
Length: 10 weeks (362 hours).
Exhibit Dates: 7/75-Present.
Objectives: To provide senior staff noncommissioned officers with a broad base of understanding in all elements of supply, with emphasis on supply operations and the senior NCO in executing his leadership, supervisory, and management responsibilities.
Instruction: Lectures, discussions, and practical exercises with emphasis on leadership and supervisory practices; supply accounting procedures; data systems, including records design, flowcharting, input and output devices and media; programming techniques and coding in a symbolic language; introduction to and practice in the Supported Activities Supply System (SASSY).
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision, 3 in introduction to data processing (7/77).

MC-1405-0012

BASIC SUPPLY STOCK CONTROL

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 7 weeks (218 hours).

Exhibit Dates: 7/75–Present.

Objectives: To train entry-level Marines to perform as supply administrator/operations clerks.

Instruction: Lectures, demonstrations, and practical performances in the basic skills of supply accounting required in the daily operation of a supply account. Includes instruction in typing and filing necessary to maintain supply records.

Credit Recommendation: In the vocational certificate category, 1 semester hour in personal typing, 2 in records management (7/77).

MC-1405-0013

WAREHOUSING STAFF NONCOMMISSIONED OFFICER (NCO) LEADERSHIP
(Advanced Warehousing)

Course Number: None.

Location: Service Support School, Cp. Lejuene, NC; Supply School, Cp. Lejuene, NC.

Length: 5–6 weeks (165–193 hours).

Exhibit Dates: 4/64–Present.

Objectives: To train noncommissioned officers to handle warehouse operations and perform the duties of a warehouse chief within a garrison or field warehousing operation.

Instruction: Lectures and practical exercises in the duties of a warehouse chief. Course includes fundamentals of warehousing, shipping, packing, space layout, and utilization, materials-handling equipment, and transportation.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/74).

MC-1405-0014

SENIOR ENLISTED SUPPLY

Course Number: None.

Location: Service Support School, Cp. Lejuene, NC; Supply School, Cp. Lejuene, NC.

Length: 7 weeks (201–256 hours).

Exhibit Dates: 8/63–Present.

Objectives: To train noncommissioned officers to operate supply systems.

Instruction: Lectures and practical exercises in the operation of supply systems, including supply management, office management, property control, maintenance and disposal of equipment, small-purchase procedures, transportation, and financial management.

Credit Recommendation: In the vocational certificate category, 2 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management (7/74).

MC-1405-0015

ACCOUNTABLE OFFICER

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 12 weeks (420 hours).

Exhibit Dates: 2/55–12/68.

Objectives: To train commissioned officers to manage supply accounts.

Instruction: Lectures and practical exercises in the management of supply accounts. Course includes supply procedures and operations, fiscal accounting, storage and materials handling, and transportation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in supply management (7/74); in the upper-division baccalaureate category, 4 semester hours in supply management (12/68).

MC-1405-0016

OFFICERS WAREHOUSING

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC; Supply School, Cp. Lejeune, NC.

Length: 4–5 weeks (139–165 hours).

Exhibit Dates: 8/67–12/74.

Objectives: To train commissioned officers to perform as warehousing officers.

Instruction: Lectures and practical exercises in the duties of a warehouse officer. Course includes technical publications; storage facility planning and management; materials-handling equipment; inventory procedures; receiving, issuing, and shipping procedures; storage methods; and packing, packaging, and preservation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in supply management (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in supply management (7/74); in the upper-division baccalaureate category, 3 semester hours in supply management (12/68).

MC-1405-0017

UNIT SUPPLY OFFICER

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 7–12 weeks (244–382 hours).

Exhibit Dates: 11/59–Present.

Objectives: To train officers as supply officers.

Instruction: Lectures and practical exercises in supply procedures, including supply management, office management, property control, financial management, accounting, systems analysis, procurement, transportation, distribution, storage operations, and computerized supply operations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/74); in the upper-division baccalaureate category, 4 semester hours in supply management (12/68).

MC-1405-0018

AVIATION SUPPLY OFFICER

Course Number: None.

Location: *Version 1:* Service Support School, Cp. Lejeune, NC. *Version 2:* Supply School, Cp. Lejeune, NC.

Length: *Version 1:* 10 weeks (359 hours). *Version 2:* 8–10 weeks (277–326 hours).

Exhibit Dates: *Version 1:* 7/68–Present. *Version 2:* 10/63–6/68.

Objectives: To train Marine Corps officers in the fundamentals and functions of the Navy supply system.

Instruction: Lectures and practical exercises in the fundamentals of supply management, office procedures, financial management, purchasing, inventory control, and systems analysis.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/74); in the upper-division baccalaureate category, 3 semester hours in supply management (7/74). *Version 2:* In the vocational certificate category, 3 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/74); in the upper-division baccalaureate category, 5 semester hours in supply management (12/68).

MC-1405-0019

1. BASIC COMMUNICATION OFFICER (BCOC)
   (Basic Communications Officer)
2. BASIC COMMUNICATION OFFICER
   (Communication Officers Orientation)

Course Number: None.

Location: *Version 1:* Development and Education Command, Quantico, VA. *Version 2:* Development and Education Command, Quantico, VA; Marine Corps School, Quantico, VA.

Length: *Version 1:* 9–11 weeks (277–347 hours). *Version 2:* 5–9 weeks (135–276 hours).

Exhibit Dates: *Version 1:* 9/69–Present. *Version 2:* 5/56–8/69.

Objectives: To train basic school graduates to be communications officers.

Instruction: Lectures and practical exercises in communication center organization and operation, basic radio theory, communication equipment and procedures, amphibious operations, and command and staff organization.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited specialized nature of the course (12/77). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in communications center management (12/68).

MC-1406-0001

ENLISTED INSTRUCTOR ORIENTATION

Course Number: None.

Location: Development and Education Command, Quantico, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 12/68–Present.

Objectives: To train instructors in the basic procedures and techniques of instruction, with emphasis on communication skills.

Instruction: Lectures and practical experience in the professional foundations of learning and teaching, communication skills, procedures and techniques of instruction, objective examination techniques, and a series of practice presentations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in instructional methods (1/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in instructional methods (1/74); in the upper-division baccalaureate category, 1 semester hour in instructional methods (1/74).

MC-1406-0002

Women Physical Training Instructor
(Physical Training Instructor (Women))

Course Number: None.
Location: Development and Education Command, Quantico, VA.
Length: 11 weeks (427–482 hours).
Exhibit Dates: 12/68–Present.
Objectives: To train military personnel as instructors of physical training.
Instruction: Structural and functional kinesiology; applied principles of physical training; personal grooming; sports skills; aquatics; physical fitness training methodology; techniques of instruction; individual conditioning.
Credit Recommendation: In the vocational certificate category, 8 semester hours in physical education (1/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in physical education (1/74); in the upper-division baccalaureate category, 8 semester hours in physical education (1/74).

MC-1406-0003

Instructor Orientation

Course Number: None.
Location: Marine Corps School, Quantico, VA.
Length: 3 weeks (68–105 hours).
Exhibit Dates: 12/56–4/65.
Objectives: To provide enlisted personnel with a knowledge of the principles and techniques of instruction.
Instruction: Lectures and practical experience in teaching methodology, educational psychology, and effective writing.
Credit Recommendation: In the vocational certificate category, 3 semester hours in instructional methods (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in instructional methods (1/74); in the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

MC-1406-0004

Sergeants Major Personnel Administration

Course Number: None.
Location: Personnel Administration School, Parris Island, SC.
Length: 6 weeks (260 hours).
Exhibit Dates: 7/58–12/68.
Objectives: To train sergeants major in basic personnel management procedures.
Instruction: Lectures in personnel administrative procedures, including personnel records and classification systems; separations and pay procedures; office management; English and speech; correspondence and publications; and naval justice.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in personnel records and classification administration (12/68).

MC-1406-0005

First Sergeants Personnel Administration

Course Number: None.
Location: Personnel Administration School, Parris Island, SC.
Length: 6 weeks (197–241 hours).
Exhibit Dates: 4/63–Present.
Objectives: To train first sergeants in the procedures involved in military personnel administration.
Instruction: Lectures and practical exercises in enlisted and officer records, personnel classification and accounting, pay and benefits, naval justice, correspondence, combat and casualty reporting, and personnel actions and related reports.
Credit Recommendation: In the vocational certificate category, 3 semester hours in personnel administration (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in personnel administration (2/74); in the upper-division baccalaureate category, 2 semester hours in personnel records and classification administration (12/68).

MC-1406-0006

Warrant Officer Personnel Administration

Course Number: None.
Location: Personnel Administration School, Parris Island, SC.
Length: 5 weeks (143–146 hours).
Exhibit Dates: 4/63–12/72.
Objectives: To train warrant officers in the duties of administrative officers.
Instruction: Lectures and practical exercises in regulatory publications, service records, personnel accounting, classification, naval justice, correspondence, personnel records, personnel management, and custodial duties.
Credit Recommendation: In the vocational certificate category, 2 semester hours in personnel administration (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in personnel administration (2/74); in the upper-division baccalaureate category, 2 semester hours in personnel administration (12/68).

MC-1406-0007

Basic Personnel Administration

Course Number: None.
Location: Personnel Administration School, Parris Island, SC.
Length: 5 weeks (166 hours).
Exhibit Dates: 1/66–12/68.
Objectives: To train enlisted personnel in the fundamentals of personnel administration.
Instruction: Lectures and practical exercises in typing, utilization of regulatory publications, maintenance and disposition of files, Marine Corps directives system, correspondence practices, personnel accounting, military justice, maintenance of personnel records, and completion of allotment forms.
Credit Recommendation: In the vocational certificate category, 2 semester hours in office administration (2/74).

MC-1406-0008

Administrative Chief's Personnel Administration
(Personnel Chief's Personnel Administration)

Course Number: None.
Location: Marine Corps Recruit Depot, Parris Island, SC; Personnel Administration School, Parris Island, SC.
Length: 8–10 weeks (213–440 hours).
Exhibit Dates: 7/58–Present.
Objectives: To train noncommissioned officers for supervisory duties in military personnel administration.
Instruction: Lectures and practical exercises in manpower management, enlisted records, pay and allowances, correspondence, naval justice, personnel classification and personnel actions, and office management.
Credit Recommendation: In the vocational certificate category, 6 semester hours in personnel administration (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in personnel administration (2/74); in the upper-division baccalaureate category, 3 semester hours in personnel administration (12/68).

MC-1406-0009

1. **Marine Corps Recruiter**
2. **Recruiter**

Course Number: None.
Location: Recruit Depot, Parris Island, SC; Recruit Depot, San Diego, CA.
Length: 6 weeks (227 hours).
Exhibit Dates: *Version 1:* 5/72–7/78. *Version 2:* 3/58–4/72.
Objectives: To train selected noncommissioned officers in personnel recruiting duties and responsibilities.
Instruction: Lectures and practical exercises in recruitment of personnel. Course includes screening and processing procedures, salesmanship and public speaking, operation of recruiting substations, officer selection, advertising and community relations, leadership training, and typing.
Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in typing, 1 in salesmanship (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in salesmanship (7/74). *Version 2:* In the vocational certificate category, 1 semester hour in typing, 1 in salesmanship (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in salesmanship (7/74); in the upper-division baccalaureate category, credit in typing and speech on the basis of institutional evaluation (12/68).

MC-1406-0010

Officer Instructor Orientation

Course Number: None.
Location: Instructor Training School, Quantico, VA.
Length: 2 weeks (105 hours).
Exhibit Dates: 10/69–Present.
Objectives: To train commissioned officers and instructors in foundations, methodologies, academic procedures, and techniques of instruction.
Instruction: Lectures and practical exercises in instructional methods. Course includes scientific fundamentals, methodologies, academic procedures, and techniques of military instruction.
Credit Recommendation: In the vocational certificate category, 1 semester hour in educational technology (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in educational technology (7/74); in the upper-division baccalaureate category, 1 semester hour in educational technology (7/74).

MC-1406-0011

Technical Instructor—Basic

Course Number: None.
Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.
Length: 2 weeks (67 hours).
Exhibit Dates: 7/75–11/78.
Objectives: To develop attitudes, knowledge, and skills necessary to instill mastery learning through systematic instruction.
Instruction: Lectures and student presentation to include and incorporate academic guidelines, construction of learning objec-

tives, test item construction, methods of instruction, and communication skills.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in instructional methods (8/77).

MC-1406-0012

FORMAL SCHOOL INSTRUCTOR (IAC)

Course Number: None.

Location: Service Support School, Cp Lejeune NC; Development and Education Command, Quantico, VA.

Length: 4 weeks (131–143 hours).

Exhibit Dates: 10/75–Present.

Objectives: To train selected personnel to perform as instructors at formal schools.

Instruction: Instruction includes lecture, demonstration, discussion and programmed text in basic communication skills; instructional planning, preparation, strategies, presentation, evaluation, and revision.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in instructional methods (10/77).

MC-1407-0001

LEGAL CLERK/COURT REPORTER
(Basic Legal Clerk and Reporter)

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 4 weeks (126 hours).

Exhibit Dates: 8/72–5/74.

Objectives: To train enlisted personnel to perform as legal clerks or court reporters.

Instruction: Lectures and practical exercises in the duties of a legal clerk or court reporter. Course includes use of recording equipment, dictation and transcription, and court reporting techniques and procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in dictation and legal printing (7/74).

MC-1408-0001

DISBURSING CLERK COURSE

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 6 weeks (210 hours).

Exhibit Dates: 12/59–12/68.

Objectives: To provide disbursing clerks with advanced training in the administration of pay records and travel expenses.

Instruction: Lectures and practical exercises in disbursement management, including administration of pay records, allowances, personnel travel expenses, and personnel separations.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (2/74).

MC-1408-0002

ADVANCED DISBURSING CLERK

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC; Supply Schools, Cp. Lejeune, NC.

Length: *Version 1:* 5 weeks (179 hours). *Version 2:* 8–9 weeks (265 hours).

Exhibit Dates: *Version 1:* 4/69–Present. *Version 2:* 2/64–3/69.

Objectives: To train enlisted personnel in the advanced techniques and procedures of disbursing office organization and management.

Instruction: *All Versions:* Lectures and practical experience in correspondence procedures, military pay and allowances, appropriation accounting, public funds, financial returns, and personnel supervision. *Version 2:* Includes a nine-day practicum.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in office administration (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in office administration (2/74). *Version 2:* In the vocational certificate category, 3 semester hours in office administration (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in office administration (2/74); in the upper-division baccalaureate category, 2 semester hours in disbursing procedures (12/68).

MC-1408-0003

ORDNANCE OFFICER/CHIEFS
(Ordnance Officer)

Course Number: None.

Location: Ordnance School, Aberdeen Proving Ground, MD; Ordnance School, Quantico, VA.

Length: 10–26 weeks (302–720 hours).

Exhibit Dates: *Version 1:* 4/68–12/72. *Version 2:* 1/58–3/68.

Objectives: To train enlisted personnel in the procedures of ordnance maintenance management.

Instruction: Lectures in the principles, concepts, and techniques of management; integrated resource control and allocation; and technical aspects of maintenance equipment and facilities.

Credit Recommendation: *Version 1:* In the vocational certificate category, credit in principles of management on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of management (2/74); in the upper-division baccalaureate category, 3 semester hours in maintenance management (2/74). *Version 2:* In the vocational certificate category, credit in principles of management on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of management (2/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management for the 10- to 16-week course, 3 for the 22- to 26-week course (12/68).

MC-1408-0004

COMMUNICATION CENTER CHIEF

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 9–10 weeks (344–365 hours). *Version 2:* 10–15 weeks (336–506 hours).

Exhibit Dates: *Version 1:* 5/76–Present. *Version 2:* 1/68–4/76.

Objectives: To train senior noncommissioned officers to supervise military communication centers.

Instruction: Lectures in effective reading, management principles and procedures, fundamentals of communications, and security, equipment, supply and maintenance procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic communication skills, 3 in office administration (3/79). *Version 2:* In the vocational certificate category, 6 semester hours in office administration (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in office administration (2/74).

MC-1408-0005

WOMAN MARINE OFFICER'S PERSONNEL ADMINISTRATION

Course Number: None.

Location: Personnel Administration School, Parris Island, SC.

Length: *Version 1:* 5 weeks (162 hours). *Version 2:* 6 weeks (201 hours).

Exhibit Dates: *Version 1:* 8/68–Present. *Version 2:* 10/65–7/68.

Objectives: To provide enlisted women with the knowledge and skill required to perform in and supervise personnel administration.

Instruction: Lectures and practical exercises in correspondence, personnel accounting, naval justice, pay and allowances, classification testing and interviews, casualty reporting, and personal affairs.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in personnel administration (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in personnel administration (2/74). *Version 2:* In the vocational certificate category, 3 semester hours in personnel administration (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in personnel administration (2/74); in the upper-division baccalaureate category, 2 semester hours in personnel administration (12/68).

MC-1408-0006

ADMINISTRATIVE OFFICERS PERSONNEL ADMINISTRATION

Course Number: None.

Location: Personnel Administration School, Parris Island, SC.

Length: 4 weeks (173 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train commissioned and warrant officers in personnel administration.

Instruction: Lectures on personnel records, correspondence, manpower management systems, pay and allowances, and the uniform code of military justice.

Credit Recommendation: In the vocational certificate category, 3 semester hours in office management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in office management (2/74).

MC-1408-0007

ADVANCED DISBURSING MAN
(Advanced Disbursing Man Leadership)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 11 weeks (346 hours).

Exhibit Dates: 7/75–Present.

Objectives: To train corporals and staff sergeants as disbursing office workers and supervisors.

Instruction: Lectures and practical exercises in the duties of a disbursing office worker and supervisor, including adding machine operation, military pay and accounts, military travel, accounting for public funds, office management, and general disbursement procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in clerical procedures (7/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (7/77).

MC-1408-0008

1. MARINE CORPS COMMAND AND STAFF COLLEGE
2. MARINE CORPS COMMAND AND STAFF COLLEGE
3. MARINE CORPS COMMAND AND STAFF COLLEGE
4. SENIOR COURSE
5. SENIOR COURSE
6. SENIOR COURSE (Senior School)

Course Number: None.

Location: Educational Center, Quantico, VA.

Length: *Version 1:* 42–43 weeks (1044–1197 hours). *Version 2:* 40 weeks (1288 hours). *Version 3:* 40 weeks (1358 hours). *Version 4:* 40 weeks (1301-1379 hours). *Version 5:* 40 weeks (1239 hours). *Version 6:* 40 weeks (1146–1155 hours).

Exhibit Dates: *Version 1:* 8/71–Present. *Version 2:* 8/66–7/71. *Version 3:* 8/65–7/66. *Version 4:* 8/62–7/65. *Version 5:* 8/61–7/62. *Version 6:* 9/58–7/61.

Objectives: To prepare Marine Corps officers and officers from other services and foreign countries for command and staff duty at high levels.

Instruction: *All Versions:* Lectures and practical exercises on command and staff duty at high levels. *Version 1:* Topics include leadership; professional skills and fundamentals; staff functioning; management; adjunct faculty seminars; amphibious operations; operations ashore; counterinsurgency; national policy; organization, functioning, and decision making within the DoD; Army, Navy, Air Force concepts; strategic surveys; military strategy; domestic forces and factors affecting the military; and American military policy. *Version 2:* Topics include air-ground task force operations; amphibious operations; management techniques and procedures; organization and functioning for national security; foreign language instrument; geopolitics and current world situations; and executive leadership. *Version 3:* Topics include geopolitical and current world situation; air-ground task force operations; executive leadership; language qualification; organization and functioning for national security; amphibious operations; and management techniques and procedures. *Version 4:* Topics include organization and concepts of employment; command and staff principles and procedures; air/ground warfare tactics; amphibious operations; current world situation; counterinsurgency and operations against guerilla forces; political-military relationships and the military services; and research and development. *Version 5:* Topics include amphibious operations; offensive operations ashore; aviation; communication—electronics; administration and logistics; defensive operations and defense of advanced naval bases; intelligence; and political-military theory and organization for national security. *Version 6:* Topics include amphibious operations; offensive operations ashore; supporting arms; aviation; defensive operations and defense of advanced naval bases; command and staff principles and procedures; administration and logistics; intelligence; communication—electronics; and political-military theory and organization for national security.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in public affairs, 6 in management, 3 as an elective in foreign language, 3 in independent research project as an elective (7/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in public affairs, 6 in management administration, 3 in independent research thesis, 3 in French, Spanish, or Vietnamese, and, on the basis of institutional evaluation, credit in oral and written communications (12/68). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in public affairs, 6 in management administration, 3 in independent research thesis, 3 in French or Spanish, and, on the basis of institutional evaluation, credit in oral and written communications (12/68). *Version 4:* In the upper-division baccalaureate category, 6 semester hours in business organization and management, 2 in political science, 3 in French or Spanish, and, on the basis of institutional evaluation, credit in oral and written communications (12/68). *Version 5:* In the upper-division baccalaureate category, 6 semester hours in business organization and management (12/68). *Version 6:* In the upper-division baccalaureate category, 6 semester hours in business organization and management (12/68).

MC-1408-0009

BASIC COURSE, POSTGRADUATE

Course Number: None.

Location: Basic School, Quantico, VA.

Length: 3 weeks (136 hours).

Exhibit Dates: 7/54–12/68.

Objectives: To train commissioned officers in Marine Corps administrative policies and procedures.

Instruction: Lectures and practical exercises in Marine Corps administrative policies and procedures.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business organization and management (12/68).

MC-1408-0010

JUNIOR COURSE

Course Number: None.

Location: Educational Center, Quantico, VA.

Length: 38–39 weeks (1130–1151 hours).

Exhibit Dates: 9/54–6/56.

Objectives: To train junior officers to solve tactical and administrative problems.

Instruction: Lectures and practical exercises in tactics and administration, including atomic, biological, and chemical warfare; amphibious operations; artillery; aviation; communications; engineering; intelligence operations; instructor training; logistics; medical services; gunfire; personnel and administration; and tactics.

Credit Recommendation: In the vocational certificate category, 3 semester hours in business organization and management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management (7/74); in the upper-division baccalaureate category, 3 semester hours in business organization and management (12/68).

MC-1408-0011

SENIOR COURSE

Course Number: None.

Location: Educational Center, Quantico, VA.

Length: 39–42 weeks (1130–1253 hours).

Exhibit Dates: 1/55 6/56.

Objectives: To provide advanced professional education to senior commissioned officers.

Instruction: Lectures and practical exercises in command and staff duties, including fundamentals of combat and basic tactical doctrine; weapons; staff functioning, procedures, and techniques; employment of Marine forces; concepts for future operations; Marine Corps policies; and amphibious command post exercise.

Credit Recommendation: In the vocational certificate category, 4 semester hours in business organization and management (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in business organization and management (7/74); in the upper-division baccalaureate category, 6 semester hours in business organization and management (12/68).

MC-1408-0012

WOMEN OFFICERS INDOCTRINATION

Course Number: None.

Location: Women Marines Training Detachment, Quantico, VA.

Length: 5 weeks (213–229 hours).

Exhibit Dates: 10/55–6/60.

Objectives: To train female officers as company and staff officers.

Instruction: Lectures and practical exercises in the duties of company and staff officers, including leadership problems and counseling, principles of instruction, personnel administration, and general military subjects, such as food services, disbursing, administration, and map reading.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business organization and management, and credit in instructional methods on the basis of institutional evaluation (12/68).

MC-1408-0013

DISBURSING OFFICER LEADERSHIP (Disbursing Officer)

Course Number: None.

Location: *Version 1:* Service Support School, Cp. Lejeune, NC. *Version 2:* Supply School, Cp. Lejeune, NC.

Length: 8–11 weeks (280–385 hours).

Exhibit Dates: *Version 1:* 8/75–Present. *Version 2:* 7/58–7/75.

Objectives: To train commissioned officers as disbursement officers through emphasis on supervisory principles and clerical procedures in the disbursing process.

Instruction: Lectures and practical exercises in the duties of a disbursement officer. Course includes adding-machine operation, military pay and accounts, military travel, accounting for public funds, office management, and general disbursement procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in clerical procedures (7/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in principles of supervision (7/77). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in finance and disbursement (12/68).

MC-1408-0014

STAFF NONCOMMISSIONED OFFICERS (NCO) RESIDENT COURSE

Course Number: None.

Location: Officer Candidate School, Quantico, VA.

Length: 6 weeks (188 hours).

Exhibit Dates: 6/73–Present.

Objectives: To educate staff sergeants and selected personnel in professional knowledge and standards, leadership, and esprit-de-corps.

Instruction: Lectures and practical exercises in effective communication, leadership, customs, courtesies, drill and inspections, and physical training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in interpersonal relations and 3 in written and oral communications (6/75).

MC-1409-0001

Typing and General Office Procedures (Women)

Course Number: None.

Location: Training Center, Parris Island, SC.

Length: 4 weeks (155 hours).

Exhibit Dates: 7/59–12/68.

Objectives: To instruct enlisted personnel in typewriting and office procedures.

Instruction: Practical exercises in business English, spelling, correspondence, typing, filing, and office procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing, 3 in office practices (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in office practices (3/74).

MC-1409-0002

Field Radio Operator

Course Number: None.

Location: Air Ground Combat Traning Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 7 weeks (279 hours). *Version 2:* 8 weeks (278–280 hours).

Exhibit Dates: *Version 1:* 3/76–Present. *Version 2:* 8/69–2/76.

Objectives: To train inexperienced enlisted personnel to operate a variety of radio communications sets.

Instruction: Lectures and practical exercises in radio procedures and equipment operation, including a brief introduction to electrical fundamentals.

Credit Recommendation: *Version 1:* Credit is not recommended due to the military-specific nature of the course (3/79). *Version 2:* In the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

MC-1409-0003

Cryptographer

Course Number: None.

Location: Communication-Electronics School, San Diego, CA; Basic Electronics School, San Diego, CA.

Length: 10 weeks (350 hours).

Exhibit Dates: 7/56–12/68.

Objectives: To train enlisted personnel to operate communications systems and cryptographic aids, and to typewrite.

Instruction: Lectures and practical exercises in the operation of communications systems and cryptographic aids, and in typewriting, including communications system organization, message preparation, operation and installation of teletypewriter equipment, radio telegraph procedures, cryptographic techniques, classified messages handling, administrative procedures, code systems, security communications, and typing applications.

Credit Recommendation: In the vocational certificate category, 2 semester hours in typing (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (6/74).

MC-1409-0004

Communication Center Man

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communications-Electronics School, Sub Unit 2, San Diego, CA.

Length: *Version 1:* 9 weeks (333 hours). *Version 2:* 8–9 weeks (309–333 hours).

Exhibit Dates: *Version 1:* 9/76–Present; 9/76–8/76.

Objectives: To train enlisted personnel to operate field communications equipment.

Instruction: Lectures and practical exercises in the operation of field communications equipment. Course includes training in typing, preventive maintenance, publications, and general operations of field communication equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in typing on the basis of demonstrated skills (3/79). *Version 2:* Credit in typing on the basis of institutional evaluation (2/76).

MC-1601-0001

Engineer Equipment Officers

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 7–8 weeks (272–280 hours).

Exhibit Dates: 6/62–12/68.

Objectives: To train officers in engineer equipment operations and maintenance.

Instruction: Lectures and practical exercises in basic civil technology, earth moving estimating, construction equipment maintenance shops management, construction equipment limitations and capabilities, road design, and operator training.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in maintenance management, 5 in civil technology (4/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

MC-1601-0002

Engineer Officer's Orientation

Course Number: None.

Location: Engineer School Battalion, Cp. Lejeune, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train officers in basic engineering.

Instruction: Lectures and practical exercises in basic engineering, including organization of engineer units, military construction, engineer equipment, routes of communication, utilities, field electricity and plumbing, FMF refrigeration, maintenance, motor transport, embarkation of engineer equipment, and demolition and mine warfare.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in civil engineering (7/74); in the upper-division baccalaureate category, credit in engineering construction on the basis of institutional evaluation (12/68).

MC-1601-0004

Combat Engineer Officer

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 7 weeks (235 hours). *Version 2:* 6 weeks (242 hours). *Version 3:* 4 weeks (132 hours).

Exhibit Dates: *Version 1:* 7/71–Present. *Version 2:* 6/67–6/71. *Version 3:* 6/62–5/67.

Objectives: To train personnel as combat engineer officers.

Instruction: *All Versions:* Lectures and practical exercises in engineering subjects, including engineering job management, construction, bridges, roads, and demolition. *Version 1:* Topics include routes of communication, engineer equipment, landmine warfare, and field fortification and camouflage. *Version 2:* Topics include engineer equipment, field construction, routes of communication, landmine warfare, and job planning. *Version 3:* Topics include organization of Fleet Marine Force, engineer equipment, mine warfare, camouflage, field fortification, building construction, rigging, soils, engineer reconnaissance, and planning projects.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in civil engineering technology (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours in civil engineering technology (7/74); in the upper-division baccalaureate category, credit in engineering construction on the basis of institutional evaluation (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in civil engineering technology (7/74); in the upper-division baccalaureate category, credit in engineering construction on the basis of institutional evaluation (12/68).

MC-1601-0005

Artillery Weapons Repairman

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 14 weeks (420 hours).

Exhibit Dates: 7/54–6/72.

Objectives: To train artillery weapons repairmen to maintain and repair field and antiaircraft artillery.

Instruction: Lectures and practical exercises in artillery fundamentals; rigging; major components operation, characteristics, disassembly, and assembly; and inspection and maintenance of various artillery weapons.

Credit Recommendation: In the vocational certificate category, 2 semester hours in mechanical or industrial technology (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical or industrial technology (8/74).

MC-1601-0006

Infantry Weapons Armorer

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 10 weeks (420 hours).

Exhibit Dates: 7/54–6/72.

Objectives: To train infantry weapons armorers to maintain and repair infantry weapons at the advanced level.

Instruction: Lectures and practical exercises in small arms fundamentals; operation and characteristics of infantry weapons; and disassembly, assembly, inspection, maintenance, and repair of weapons, including rifles, machine guns, pistols, and mortars.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in industrial or mechanical technology (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in industrial or mechanical technology (8/74).

MC-1606-0001

AIR OBSERVATION

Course Number: None.
Location: Educational Center, Quantico, VA.
Length: 13 weeks (445 hours).
Exhibit Dates: 2/56–12/68.
Objectives: To train enlisted personnel to perform as aerial observers.
Instruction: Lectures and field and flight exercises in basic air observation methods and techniques, communications, and tactical and gunnery aerial observation.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (12/68).

MC-1606-0002

AERIAL NAVIGATION
(Air Navigation)

Course Number: None.
Location: Air Station, Cherry Point, NC.
Length: 14 weeks (535–557 hours).
Exhibit Dates: 7/58–12/68.
Objectives: To train enlisted personnel to be qualified aerial navigators.
Instruction: Lectures and practical exercises in basic aerial navigation, meteorology, and radar principles and operation.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in meteorology, 8 in navigation (2/74); in the upper-division baccalaureate category, 6 semester hours in navigation (12/68).

MC-1606-0003

8TH CLASS AIR OBSERVATION SCHOOL

Course Number: None.
Location: Marine Corps School, Quantico, VA.
Length: 16 weeks (490 hours).
Exhibit Dates: 9/54–12/68.
Objectives: To train enlisted personnel as aerial observers.
Instruction: Lectures and practical exercises in aerial observation. Topics include tactical aerial observation, gunnery aerial observations, communications, and staff principles and techniques.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (12/68).

MC-1701-0001

UTILITIES OFFICER

Course Number: None.
Location: Engineer School, Cp. Lejeune, NC.
Length: 13 weeks (486 hours).
Exhibit Dates: 1/72–Present.
Objectives: To train enlisted personnel as utilities inspectors.
Instruction: Lectures and practical exercises in the inspection of utility systems. Course includes blueprint reading, introduction to engines, applied electrical fundamentals, AC motors and controls, generators, wiring, electric distribution, water purification procedures, water supply equipment, plumbing procedures, refrigeration theory and systems, refrigeration equipment, air conditioning, and technical inspections.
Credit Recommendation: In the vocational certificate category, 5 semester hours in basic refrigeration (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic refrigeration (6/74).

MC-1703-0001

1. TRACKED VEHICLE REPAIRMAN, TANK
2. TRACKED VEHICLE REPAIRMAN, TANK, BASIC

(Tank Vehicle Repairman)

Course Number: None.
Location: Headquarters, Schools Battalion, Cp. Pendleton, CA.
Length: *Version 1:* 5 weeks (174 hours). *Version 2:* 10 weeks (356 hours).
Exhibit Dates: *Version 1:* 2/72–12/74. *Version 2:* 10/66–1/72.
Objectives: To train enlisted personnel to inspect, troubleshoot, and repair tank systems.
Instruction: Lectures and practical exercises in tank systems inspection, troubleshooting, and repair, including tracked-vehicle introduction; maintenance procedures; electrical systems; engines; power train; hull, track, and suspension systems; care and use of tools and equipment; and engine tune-up and preventive maintenance checks and services.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in automobile mechanics or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automobile mechanics or heavy equipment repair (4/74). *Version 2:* In the vocational certificate category, 1 semester hour in introduction to internal-combustion engines, 5 in automobile mechanics or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in introduction to internal-combustion engines, 4 in automobile mechanics or heavy equipment repair (4/74).

MC-1703-0002

ADVANCED MOTOR TRANSPORT

Course Number: None.
Location: Supply School, Cp. Lejeune, NC.
Length: 16 weeks (511 hours).
Exhibit Dates: 7/58–12/68.
Objectives: To train noncommissioned officers to supervise, operate, and maintain motor transport equipment.
Instruction: Lectures and practical exercises in motor transport equipment operation and maintenance, including internal-combustion engines, carburetion and ignition, power train, hydraumatic transmission, and brakes; preventive maintenance and body repair; and supervisory procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in automotive mechanics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive mechanics (4/74).

MC-1703-0003

MOTOR TRANSPORT CHIEF

Course Number: None.
Location: Supply School, Cp. Lejeune, NC.
Length: 10-13 weeks (358–454 hours).
Exhibit Dates: 9/64–12/68.
Objectives: To train noncommissioned officers to supervise personnel in the servicing, testing, maintenance, and repair of automobiles.
Instruction: Lectures and practical exercises in administration, maintenance management, and supply systems; automobile tools, power plant, electrical and fuel systems; tune-up; and power train, chassis, body, radiator, and fuel tank servicing, testing, maintenance, and repair.
Credit Recommendation: In the vocational certificate category, 3 semester hours in automotive mechanics or automotive technology (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in automobile mechanics or automotive technology (4/74).

MC-1703-0004

ONTOS (M50) (FOURTH AND FIFTH ECHELON) MAINTENANCE

Course Number: None.
Location: Tracked Vehicle Repairman School, Cp. Pendleton, CA.
Length: 3 weeks (126 hours).
Exhibit Dates: 7/58–12/68.
Objectives: To train tracked vehicle repairmen as specialists in combat tracked vehicle repair.
Instruction: Lectures and practical exercises in tracked vehicle hull, track, and suspension systems repair; removal, disassembly, repair, reassembly, and testing of engines and power trains; basic electricity; and troubleshooting and inspection procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in automobile mechanics or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automobile mechanics or heavy equipment repair (4/74).

MC-1703-0005

TRACKED VEHICLE REPAIRMAN (ONTOS), BASIC
(ONTOS Vehicle Repairman)

Course Number: None.
Location: Schools Battalion, Cp. Pendleton, CA.
Length: 5 weeks (200 hours).
Exhibit Dates: 8/67–12/68.
Objectives: To train enlisted personnel to inspect, troubleshoot, and repair tracked vehicles.
Instruction: Lectures and practical exercises in the functions of tracked vehicle repairmen, including basic driving; inspection, troubleshooting, and repair of electrical systems, engines and power trains, and hull, track, and suspension systems; and recovery procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in automobile mechanics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automobile mechanics (4/74).

MC-1703-0006

1. TRACKED VEHICLE REPAIRMAN SELF-PROPELLED ARTILLERY
2. TRACKED VEHICLE REPAIRMAN (SELF-PROPELLED ARTILLERY), BASIC

(Self-Propelled Vehicle Repairman)

Course Number: None.
Location: Headquarters, Schools Battalion, Cp. Pendleton, CA.
Length: *Version 1:* 5 weeks (153 hours). *Version 2:* 10 weeks (356 hours).
Exhibit Dates: *Version 1:* 2/72–12/74. *Version 2:* 9/67–1/72.

Objectives: To train enlisted personnel to maintain and repair self-propelled, tracked artillery vehicles.

Instruction: Lectures and practical exercises in the maintenance and repair of self-propelled, tracked artillery vehicles, including operation and repair of hull and suspension systems, electrical systems, engines and power trains, basic driving, and recovery procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in auto mechanics or heavy equipment repair (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in auto mechanics or heavy equipment repair (4/74). *Version 2:* In the vocational certificate category, 3 semester hours in auto mechanics or heavy equipment repair, 1 in auto electricity, 1 in introduction to internal-combustion engines (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automobile mechanics or heavy equipment repair, 1 in auto electricity, 1 in introduction to internal-combustion engines (4/74).

MC-1703-0007

Automotive Preventive Maintenance

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: 6 weeks (203 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train enlisted personnel to perform preventive maintenance on automotive equipment.

Instruction: Lectures and practical exercises in preventive maintenance on automotive equipment, including nomenclature, construction, function and troubleshooting of fuel and electrical systems; power train, brake, steering and suspension systems; driver training; and lubrication and inspections.

Credit Recommendation: In the vocational certificate category, 6 semester hours in automotive mechanics (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automotive mechanics (5/74).

MC-1703-0008

Automotive Organizational Maintenance

(Automotive Organizational Mechanics)

Course Number: None.

Location: *Version 1:* Service Support School, Cp. Lejeune, NC. *Version 2:* Headquarters, Schools Battalion, Cp. Pendleton, CA.

Length: 7 weeks (280–298 hours).

Exhibit Dates: *Version 1:* 9/70–Present. *Version 2:* 6/66–8/70.

Objectives: To train enlisted personnel to perform as automotive mechanics.

Instruction: Lectures and practical exercises in the inspection, service, and repair of tactical automotive vehicles, including shop procedures, power plants, and fuel and electrical systems; fuel and electrical systems trouble diagnosis and tune-up; power trains; chassis, brakes, and suspension systems; diesel and multifuel engines; motor vehicle operation; and preventive maintenance techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in automotive maintenance (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automotive maintenance (7/74). *Version 2:* In the vocational certificate category, 8 semester hours in automotive or heavy equipment repair (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive or heavy equipment repair (5/74).

MC-1703-0009

1. Basic Automotive Mechanic
2. Automotive Mechanics
3. Automotive Mechanic
4. Automotive Mechanic

Course Number: None.

Location: Supply School, Cp. Lejeune, NC.

Length: *Version 1:* 12 weeks (399 hours). *Version 2:* 13 weeks (450–455 hours). *Version 3:* 10 weeks (317–344 hours). *Version 4:* 14 weeks (422 hours).

Exhibit Dates: *Version 1:* 7/72–Present. *Version 2:* 7/67–6/72. *Version 3:* 8/63–6/67. *Version 4:* 7/58–7/63.

Objectives: To train enlisted personnel to inspect, service, and repair motor transport equipment.

Instruction: *All Versions:* Lectures and practical exercises in motor transport equipment inspection, maintenance, and repair, including basic principles of electricity, automotive equipment components operation and repair, maintenance management, care and use of tools, and preventive maintenance. *Version 1:* Instruction includes driver training. *Version 2:* Instruction emphasizes power plants, power transmission systems, chassis, brakes, and suspension systems.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in a general motor transport automotive program/heavy equipment, 2 in automotive electrical systems, 1 in power transmission, 1 in brakes, chassis, and suspension, and 1 in driver education motor transport/heavy equipment (4/76). *Version 2:* In the vocational certificate category, 12 semester hours in automotive or heavy equipment (5/74); in the lower-division baccalaureate/associate degree category, 10 semester hours in automotive or heavy equipment (5/74). *Version 3:* In the vocational certificate category, 10 semester hours in automotive or heavy equipment (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive or heavy equipment (5/74). *Version 4:* In the vocational certificate category, 12 semester hours in automotive or heavy equipment (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive or heavy equipment (5/74).

MC-1703-0010

Tracked Vehicle Repairman

Course Number: None.

Location: Tracked Vehicle Repairman School, Cp. Pendleton, CA.

Length: 15 weeks (600 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train enlisted personnel to perform and supervise scheduled maintenance on tracked vehicles.

Instruction: Lectures and practical exercises in the maintenance, supervision, and repair of tracked vehicles. Topics include operation principles, publications and equipment use, nomenclature and construction, fundamentals of electricity, tracked vehicle ignition systems and generators, starters, generator control systems, hull wiring circuits, engines, and troubleshooting techniques.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

MC-1703-0011

1. Tracked Vehicle Repairman Amphibian Tractor
2. Tracked Vehicle Repairman (Amphibian Vehicle)(Basic) (Amphibian Vehicle Repairman)

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: *Version 1:* 5 weeks (197 hours). *Version 2:* 10 weeks (356 hours).

Exhibit Dates: *Version 1:* 2/72–Present. *Version 2:* 8/67–1/72.

Objectives: To train enlisted personnel as amphibious vehicle repairmen.

Instruction: *All Versions:* Lectures and practical exercises in amphibious vehicle inspection, troubleshooting, and repair, including introduction to maintenance, basic driving, engines, power train, electrical system, suspension, hydraulics, and recovery procedures. *Version 1:* Instruction emphasizes practical applications.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in basic electricity, 1 in introduction to automobile mechanics, 1 in general shop laboratory (7/74). *Version 2:* In the vocational certificate category, 2 semester hours in basic electricity, 3 in introduction to automobile mechanics, 3 in general shop laboratory (7/74).

MC-1703-0012

Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 16 weeks (503 hours).

Exhibit Dates: 7/74–Present.

Objectives: To train personnel to diagnose and repair defects in light-duty and medium-duty trucks and to demonstrate proficiency in those repairs. In addition, the student will have a working knowledge of maintenance management techniques relative to truck operations.

Instruction: Major areas of instruction include gasoline, diesel, and multi-fuel power plants; electrical and fuel systems; transmissions and drive trains; and brake systems. Management areas include maintenance management, allied trades, and specialized maintenance operations.

Credit Recommendation: In the vocational certificate category, 6 semester hours in automotive mechanics, 2 in automotive maintenance management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical systems, 3 in diesel power plants, 3 in gasoline power plants, 2 in heavy-duty brake systems, 2 in heavy-duty power trains (4/76); in the upper-division baccalaureate category, 2 semester hours in truck maintenance management (4/76).

MC-1703-0013

Tracked Vehicle Maintenance Officer

Course Number: None.

Location: Tracked Vehicle Repairman School, Cp. Pendleton, CA.

Length: 12-13 weeks (480-520 hours).
Exhibit Dates: 7/58-12/68.

Objectives: To train officers to supervise, maintain, and repair tracked vehicles.

Instruction: Lectures and practical exercises in the supervision, maintenance, and repair of tracked vehicles, including hull, track, and suspension construction; electricity fundamentals; engine systems; generators; starters; wiring circuits; power train; tracked vehicle turrets; vehicle transmission; hydraulic operation of specific equipment; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introductory auto mechanics, 2 in automobile electrical systems (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in introductory auto mechanics, 2 in automobile electrical systems (7/74).

MC-1703-0014

AUTOMOTIVE MAINTENANCE OFFICER

Course Number: None.
Location: Supply School, Cp. Lejeune, NC.
Length: 12-14 weeks (395-490 hours).
Exhibit Dates: 5/64-Present.

Objectives: To train warrant officers to organize, administer, and manage motor transport equipment maintenance and repair facilities.

Instruction: Lectures and practical exercises in the management of motor transport equipment maintenance and repair facilities. Course includes tools, power plant (spark and compression ignition), electrical and fuel systems, power train, maintenance management, preventive maintenance, unit removal and replacement, body radiator and fuel tank repair, and supply systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in automotive technology, 2 in shop foremanship (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive technology, 2 in shop foremanship (7/74).

MC-1703-0016

MOTOR TRANSPORT STAFF
NONCOMMISSIONED OFFICER (NCO)
LEADERSHIP
(Automotive Technicians)

Course Number: None.
Location: Service Support Schools, Cp. Lejeune, NC.
Length: 13 weeks (467 hours).
Exhibit Dates: 7/73-Present.

Objectives: Upon successful completion of this course the student will be able to supervise personnel performing inspection, repair, and replacement of all automotive wheeled vehicle components. Student will also be able to supervise the operation of a motor pool and motor vehicle use.

Instruction: Lecture-demonstrations and practical applications in the following areas: fuel and electrical systems, diesel engines, spark ignition engines, chassis and braking, body and fender repair, spark ignition engine tune-up, and motor transport supply, operation, and administration.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automotive electrical systems, 5 in diesel engine diagnosis and repair, 2 in automotive suspension and braking, 1 in spark ignition tune-up (4/76); in the lower-division baccalaureate/associate degree category, 5 semester hours in motor vehicle service and maintenance management (4/76).

MC-1704-0001

AIR CONTROL ELECTRONICS OPERATOR,
AUTOMATED SYSTEM

Course Number: None.
Location: Communication-Electronics School, Twentynine Palms, CA.
Length: 4-5 weeks (140-176 hours).
Exhibit Dates: 1/72-Present.

Objectives: To train enlisted personnel with some knowledge of air control and anti-air warfare fundamentals to perform as air control electronics operators.

Instruction: Lectures and demonstrations in air control electronics fundamentals, including tactical air operations introduction; electronic warfare; and air traffic controller, weapons controller, and missile direction operations and procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/76).

MC-1704-0002

AIR CONTROL/ANTIAIR WARFARE
ELECTRONICS OPERATOR
(Air Control/Antiaircraft Warfare Electronics Operator)

Course Number: None.
Location: Communication-Electronics School, San Diego, CA.
Length: 5-7 weeks (175-245 hours).
Exhibit Dates: 6/64-Present.

Objectives: To train enlisted personnel in tactical air control, air support, and antiaircraft missile systems electronics operations.

Instruction: Lectures and demonstrations in air control and air support electronics, including radar indicator operation and adjustment; radio direction finding equipment; radio/telephone procedures; aircraft control information status and plotting; and interpreting aircraft speed, course, altitude, and identification from radar indications.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

MC-1704-0003

MARINE MECHANICAL FUNDAMENTALS

Course Number: None.
Location: Aviation Detachment, Jacksonville, FL.
Length: *Version 1:* 7 weeks (280 hours). *Version 2:* 8 weeks (320 hours).
Exhibit Dates: *Version 1:* 3/64-12/68. *Version 2:* 1/60-2/64.

Objectives: To train enlisted personnel in mechanical fundamentals.

Instruction: Lectures and practical exercises in the fundamentals of electricity, mathematics, physics, aviation familiarization, aviation mechanics, hand tools, aircraft instruments and structures, aviation ordnance, and technical publications.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in general aeronautics (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in general aeronautics (2/74); in the upper-division baccalaureate category, 2 semester hours in general aeronautics (12/68). *Version 2:* In the vocational certificate category, 5 semester hours in general maintenance fundamentals (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in general aviation maintenance fundamentals (2/74); in the upper-division baccalaureate category, 3 semester hours in general aviation maintenance fundamentals (12/68).

MC-1704-0005

AERIAL OBSERVER
(Air Observer)
(Tactical Aerial Observer)

Course Number: None.
Location: Aerial Observation School, Jacksonville, NC.
Length: 8-10 weeks (299-553 hours).
Exhibit Dates: 1/68-Present.

Objectives: To train officers to perform as aerial observers.

Instruction: Lectures and practical exercises in aerial observation, including communications, gunfire support, airborne map reading and navigation, visual reconnaissance techniques, target acquisition, aerial photography fundamentals, liaison and utility missions, aerial radiological monitoring, terrain and weather conditions, and tactical reconnaissance of roads, bridges, rivers, beaches, railroads, and urban areas.

Credit Recommendation: Credit is not recommended because of the military nature of the course (12/68).

MC-1704-0006

AIR DEFENSE CONTROL OFFICER,
AUTOMATED SYSTEM (ADCOC)

Course Number: None.
Location: Air Command and Control School, Twentynine Palms, CA.
Length: 9 weeks (335 hours).
Exhibit Dates: 7/73-Present.

Objectives: To provide personnel with training necessary to operate specific air defense control equipment.

Instruction: Lectures and practical exercises in the Marine air command and control system, surveillance operations, basic control procedure, threat evaluation/weapon assignment, pattern intercepts, and system utilization.

Credit Recommendation: In the vocational certificate category, 4 semester hours in air traffic management and control (6/75).

MC-1708-0001

ASSAULT AMPHIBIAN VEHICLE CREWMAN
(Amphibian Vehicle Crewman)

Course Number: None.
Location: Tracked Vehicle School, Cp. Pendleton, CA.
Length: 4-5 weeks (113-168 hours).
Exhibit Dates: 9/73-12/73.

Objectives: To provide the student with the skills necessary to serve as an amphibian tractor crewman.

Instruction: Lectures and practical exercises in vehicle description, safety procedures, basic radio communications, vehicle recovery, before and after operational checks, basic land and water driving procedures, operation and preventive maintenance of the weapons station and M85 machine gun, and vehicle preventive maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in amphibious vehicle operation (7/74).

MC-1710-0001

1. BASIC ENGINEER EQUIPMENT MECHANIC
   (Engineer Equipment Mechanic)
2. ENGINEER EQUIPMENT MECHANICS
3. ENGINEER EQUIPMENT MECHANIC (BASIC)

Course Number: None.
Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 10-15 weeks (398-538 hours). *Version 2:* 14 weeks (490 hours). *Version 3:* 18 weeks (540 hours).

Exhibit Dates: *Version 1:* 5/67-Present. *Version 2:* 5/62-4/67. *Version 3:* 7/58-4/62.

Objectives: To train enlisted personnel to operate and maintain heavy construction equipment.

Instruction: Lectures and practical exercises in engine repair and troubleshooting, (including ancillary systems), tractors, graders, cranes, mixers, rollers, ditchers, compressors, diesel engines and gasoline engines maintenance, road machinery operation, and power shovel and special equipment operation and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in heavy equipment mechanics (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in heavy equipment mechanics (7/74). *Version 2:* In the vocational certificate category, 3 semester hours in automobile engines, 6 in heavy equipment maintenance or civil technology, 4 in heavy equipment operation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automobile engines, 4 in heavy equipment maintenance or civil technology, 3 in heavy equipment operation (4/74). *Version 3:* In the vocational certificate category, 3 semester hours in automobile engines, 6 in heavy equipment maintenance or civil technology, 4 in heavy equipment operation (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automobile engines, 4 in heavy equipment maintenance or civil technology, 3 in heavy equipment operation (4/74).

MC-1710-0002

BASIC ENGINEER EQUIPMENT OPERATOR
(Engineer Equipment Operators)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 8-11 weeks (301-385 hours).

Exhibit Dates: 6/62-12/74.

Objectives: To train enlisted personnel to operate and maintain tractors, graders, cranes, and stationary engineer equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of tractors, graders, cranes, and stationary engineer equipment, including identification and nomenclature of engineer equipment, principles of internal-combustion engines and electrical and lubrication systems, and preventive maintenance procedures for specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in heavy equipment operation (4/74).

MC-1710-0003

CONSTRUCTION FOREMAN

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 19 weeks (540 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel to supervise the repair and camouflaging of military structures and facilities.

Instruction: Lectures and practical exercises in the supervision of construction operations, including camouflaging, repair, rigging, lumbering, painting, woodworking, shop planning and management, construction equipment, construction drawing, prefabricated-building erection, building construction methods, estimating, culverts, bridging, demolition, and mine warfare.

Credit Recommendation: In the vocational certificate category, 10 semester hours in construction technology (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in construction technology (7/74); in the upper-division baccalaureate category, credit in construction technology on the basis of institutional evaluation (12/68).

MC-1710-0004

ARMORED AMPHIBIAN CREWMAN
TRAINING, LVTA5, LVTP5

Course Number: None.

Location: Tracked Vehicle Training Battalion, Cp. Pendleton, CA.

Length: 6 weeks (296 hours).

Exhibit Dates: 12/54-12/68.

Objectives: To train enlisted personnel to perform as armored amphibian crewmen.

Instruction: Lectures and practical exercises in the functions of an armored amphibian crewman, including operations and driving procedures, gunnery, communications procedures and equipment, preventive maintenance and systems analysis, tactics, map reading, and elementary hydrography.

Credit Recommendation: Insufficient data for evaluation (4/74).

MC-1710-0005

AMPHIBIAN TRACTOR CREWMAN TRAINING
LVT3C, LVTP5

Course Number: None.

Location: Tracked Vehicle Training Battalion, Cp. Pendleton, CA.

Length: 6 weeks (283 hours).

Exhibit Dates: 12/54-12/68.

Objectives: To train enlisted personnel to perform as amphibian tractor crewmen.

Instruction: Lectures and practical exercises in the functions of an amphibian tractor crewman, including operation and driving procedures, gunnery, communications procedures and equipment, preventive maintenance and systems analysis, tactics, map reading, and elementary hydrography.

Credit Recommendation: Insufficient data for evaluation (4/74).

MC-1710-0006

BASIC TANK CREWMAN

Course Number: None.

Location: Headquarters, Schools Battalion, Cp. Pendleton, CA.

Length: 4 weeks (154 hours).

Exhibit Dates: 7/65-12/73.

Objectives: To train enlisted personnel to perform as tank crewmen.

Instruction: Lectures and practical exercises in the functions of tank crewmen, including employment of organic communications equipment, protective and decontamination procedures, driving, sighting and fire control instruments, conduct of fire, subcaliber firing, service firing, and preventive maintenance procedures.

Credit Recommendation: Credit is not recommended because of the military nature of the course (4/74).

MC-1710-0007

TRACKED VEHICLE REPAIRMAN
ADVANCED
(Advanced Tracked Vehicle Repairman)

Course Number: None.

Location: Headquarters, Schools Battalion, Cp. Pendleton, CA; Tracked Vehicle School, Cp. Pendleton, CA.

Length: 8-12 weeks (276-424 hours).

Exhibit Dates: 7/58-12/74.

Objectives: To train enlisted personnel to maintain tracked combat vehicles.

Instruction: Lectures and practical exercises in the maintenance of tracked combat vehicles, including maintenance management; operation and inspection of engine, hull, turret, suspension, and power train; electrical components; practical applications; and troubleshooting and repair of transmissions.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in mechanical technology (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in mechanical technology (4/74).

MC-1710-0008

TURRET REPAIRMAN

Course Number: None.

Location: Tracked Vehicle Repairman School, Cp. Pendleton, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 7/58-12/74.

Objectives: To train enlisted personnel to repair and maintain the turrets and armament systems of tanks, armored amphibian tractors, and other combat vehicles.

Instruction: Lectures and practical exercises in the repair and maintenance of the turrets and armament of tanks, armored amphibian tractors, and other combat vehicles, including installation of gun and mount mechanisms, basic hydraulics, fundamentals of electrical theory, fire control systems, flame throwers and self-propelled guns, and analysis of various guns and mounts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in mechanical or industrial technology (4/74).

MC-1710-0009

TANK UNIT LEADERS (ENLISTED)

Course Number: None.

Location: Tracked Vehicle Operations School, Cp. Pendleton, CA.

Length: 12 weeks (488 hours).

Exhibit Dates: 7/58-12/74.

Objectives: To train noncommissioned officers to perform as members of tank crews.

Instruction: Lectures and practical exercises in leadership, tactics, and techniques of tank operations, including tank communications equipment, troubleshooting, operation and maintenance of specific equipment electrical systems, engines, and transmissions; flame tank familiarization; turret electrical, hydraulic, and manual controls; turret-associated equipment; driving; map reading; and logistics and leadership training.

Credit Recommendation: Credit is not recommended because of the military nature of the course (4/74).

MC-1710-0010

ASSAULT AMPHIBIOUS VEHICLE UNIT
LEADER
(Amphibious Vehicle Unit Leader)
(Amphibious Vehicle Unit Leaders (Enlisted))

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA; Tracked Vehicle Operations School, Cp. Pendleton, CA.

Length: 5-12 weeks (197-528 hours).

Exhibit Dates: 7/58–Present.

Objectives: To train selected personnel to supervise amphibious vehicle crews.

Instruction: Lectures and practical exercises in amphibious vehicle operations, including operation, inspection, and maintenance of power train, engines, and turrets; hull, track, and suspension systems; electrical system; communications equipment; indirect and direct fire gunnery procedures; tactics; logistics; and leadership training.

Credit Recommendation: No credit because of the military nature of the course (4/74).

MC-1710-0011

1. ARTILLERY WEAPONS REPAIRMAN (BASIC)
2. ARTILLERY WEAPONS REPAIRMAN

Course Number: None.

Location: Ordnanace School, Quantico, VA.

Length: *Version 1:* 5–6 weeks (219–241 hours). *Version 2:* 7 weeks (296–300 hours).

Exhibit Dates: *Version 1:* 7/60–12/72. *Version 2:* 7/58–6/60.

Objectives: To train noncommissioned officers to maintain and repair artillery weapons and related material and mounts.

Instruction: Lectures and practical exercises in the maintenance and repair of artillery weapons and related material and mounts, including use of measuring instruments and hand tools, inspection techniques, and repair of howitzers, mortars, and cannons.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in mechanical repair technology (5/74). *Version 2:* In the vocational certificate category, 2 semester hours in mechanical repair technology (5/74).

MC-1710-0012

JOURNEYMAN PLUMBING AND WATER SUPPLY MAN

(Plumbing and Water Supply Journeyman)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 12 weeks (417 hours).

Exhibit Dates: 1/71–Present.

Objectives: To qualify noncommissioned officers who have completed the basic plumbing and water supply man course as journeymen.

Instruction: Lectures and practical exercises in the skills of a journeyman plumbing and water supply man, including supply procedures and systems control; installation and repair of plumbing, heating, and sewage systems; water supply equipment and water purification equipment; development of water sources and points; and well drilling.

Credit Recommendation: In the vocational certificate category, 6 semester hours in plumbing and water supply, plumbing and heating, environmental technology, water resources, or water treatment (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in plumbing and water supply, plumbing and heating, environmental technology, water resources, or water treatment (5/74); in the upper-division baccalaureate category, 4 semester hours in plumbing and water supply, plumbing and heating, environmental technology, water resources, or water treatment (5/74).

MC-1710-0013

1. BASIC PLUMBING AND WATER SUPPLY MAN
2. PLUMBING AND WATER SUPPLY MAN
3. PLUMBING AND WATER SUPPLY MAN

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 4 weeks (176 hours). *Version 2:* 8 weeks (235–300 hours). *Version 3:* 11 weeks (344 hours).

Exhibit Dates: *Version 1:* 8/68–Present. *Version 2:* 6/62–7/68. *Version 3:* 7/58–5/62.

Objectives: To train enlisted personnel to install, operate, and maintain water supply and plumbing equipment.

Instruction: *All Versions:* Lectures and practical exercises in the installation, operation, and maintenance of water supply and plumbing equipment, including plumbing, sewage, and heating systems; purification and distillation equipment; reconnaissance and development of water points and sources; water distribution equipment; quality control; and portable water supply equipment. *Version 2:* Includes well drilling and jetting, and reciprocating and deep-well pumps. *Version 3:* Includes principles, characteristics, and maintenance of gas and diesel engines, and mine warfare.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the upper-division baccalaureate category, 1 semester hour in beginning plumbing and water supply or environmental technology (water) (5/74). *Version 2:* In the vocational certificate category, 6 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the upper-division baccalaureate category, 1 semester hour in beginning plumbing and water supply or environmental technology (water) (5/74). *Version 3:* In the vocational certificate category, 8 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning plumbing and water supply or environmental technology (water) (5/74); in the upper-division baccalaureate category, 1 semester hour in beginning plumbing and water supply or environmental technology (water) (5/74).

MC-1710-0014

UTILITIES CHIEF

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 18 weeks (668 hours). *Version 2:* 22 weeks (679 hours). *Version 3:* 27 weeks (780 hours).

Exhibit Dates: *Version 1:* 1/72–Present. *Version 2:* 6/62–12/71. *Version 3:* 7/58–5/62.

Objectives: To train noncommissioned officers (sergeant through gunnery sergeant) to supervise the installation or repair of utilities systems.

Instruction: *All Versions:* Lectures and practical exercises in the installation or repair of utilities systems, including engineering mathematics, electrical theory, generators and motors, heating systems, blueprint reading, air-conditioning and refrigeration systems, water supply and purification systems, plumbing and sewage installations, and interior wiring. *Version 3:* Includes additional field work, especially in interior wiring, and instruction on internal-combustion engines.

Credit Recommendation: *Version 1:* In the vocational certificate category, 16 semester hours in refrigeration or electricity (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in refrigeration or electricity (5/74). *Version 2:* In the vocational certificate category, 6 semester hours in building construction and supervision (6/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in building construction and supervision (6/74); in the upper-division baccalaureate category, 3 semester hours in building construction and supervision (6/74). *Version 3:* In the vocational certificate category, 9 semester hours in building construction and supervision (6/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in building construction and supervision (6/74); in the upper-division baccalaureate category, 3 semester hours in building construction and supervision (6/74).

MC-1710-0015

UTILITIES OFFICERS

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 12 weeks (420 hours).

Exhibit Dates: 6/62–12/68.

Objectives: To familiarize warrant officers and lieutenants with the technical aspects of Marine Corps utilities systems.

Instruction: Lectures and practical exercises in the technical aspects of the utilities field, including water supply and plumbing, electrical systems, refrigeration, field problems, internal-combustion engines, Marine Corps supply system, engineer supply, supply allowances publications, decontamination, and terminology, definitions and symbols.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in building construction/supervision (5/74); in the upper-division baccalaureate category, 3 semester hours in building construction/supervision (5/74

MC-1710-0016

ENGINEER EQUIPMENT CHIEF

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 11–12 weeks (397–403 hours). *Version 2:* 13 weeks (449 hours). *Version 3:* 14 weeks (490 hours). *Version 4:* 30 weeks (1050 hours).

Exhibit Dates: *Version 1:* 7/68–Present. *Version 2:* 5/67–6/68. *Version 3:* 6/62–4/67. *Version 4:* 1/59–5/62.

Objectives: To train noncommissioned officers to supervise the operation and repair of mechanical equipment.

Instruction: *All Versions:* Lectures and practical exercises in the supervision of mechanical equipment operation and repair, including maintenance procedures; production capabilities of graders, dozers, compacters and other equipment; road design and construction; excavation; basic internal-combustion theory and repair; automotive power train theory and repair; and arc and gas welding. *Version 2:* Includes general mechanical repair. *Version 3:* Includes general mechanical repair, with emphasis on sheet metal and welding. *Version 4:* Includes general mechanical repair, with emphasis on sheet metal and welding.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in automotive technology, 2 in automotive power trains, 4 in civil construction technology (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automotive technology, 2 in automotive power trains, 4 in civil construction technology (5/74). *Version 2:* In the vocational certificate category, 1 semester hour in automotive technology, 7 in civil construction technology, 1 in mechanical technology (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in automotive technology, 7 in civil construction technology, 1 in mechanical technology (5/74). *Version 3:* In the vocational certificate category, 1 semester hour in automotive technology, 4 in civil construction technology, 1 in manufacturing processes (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in automotive technology, 4 in civil construction technology, 1 in manufacturing processes (5/74). *Version 4:* In the vocational certificate category, 4 semester hours in automotive technology, 8 in civil construction technology (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in automotive technology, 8 in civil construction technology (5/74).

MC-1710-0017

Shore Party Basic Specialist

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 4 weeks (163 hours).

Exhibit Dates: 7/67–12/72.

Objectives: To train BST students (corporal and below) as shore party basic specialists.

Instruction: Lectures and practical exercises on shore party battalion functions, including organization, equipment, mission, and employment; construction; shore party and helicopter support team organization and operations; demolitions; land mine warfare; rigging; roof, floor, and wall construction; HST operations in the LZ; wood cutting and stump removal; minefield installation; foreign mines and boobytrapping techniques; concrete construction; and shore party organization and operations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in construction technology (5/74).

MC-1710-0018

Basic Construction Man

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 10 weeks (300 hours).

Exhibit Dates: 10/56–12/68.

Objectives: To train enlisted personnel to construct, repair, and camouflage military structures and facilities.

Instruction: Lectures and practical exercises in the construction, repair, and camouflage of military structures and facilities. Course includes logging methods; painting; construction drawing; woodworking; standard military buildings; building construction methods; culverts; bridging and rigging.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in construction technology (7/74).

MC-1710-0019

Combat Engineer (Advanced)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 13 weeks (489 hours). *Version 2:* 22 weeks (654 hours). *Version 3:* 28 weeks (819 hours).

Exhibit Dates: *Version 1:* 8/67–12/68. *Version 2:* 6/62–7/67. *Version 3:* 7/58–5/62.

Objectives: To train enlisted personnel to supervise combat engineering projects.

Instruction: Lectures and practical exercises in combat engineering, including blueprint reading, construction surveying, route reconnaissance, soils engineering, building construction, bridges, utilities, hand and power woodworking tools operation, estimating procedures, and roads and airfield construction.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in engineering construction (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering construction (6/74); in the upper-division baccalaureate category, 3 semester hours in engineering construction (12/68). *Version 2:* In the vocational certificate category, 10 semester hours in engineering construction (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering construction (6/74); in the upper-division baccalaureate category, 6 semester hours in engineering construction (12/68). *Version 3:* In the vocational certificate category, 8 semester hours in engineering construction (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering construction (6/74); in the upper-division baccalaureate category, 6 semester hours in engineering construction (12/68).

MC-1710-0020

Combat Engineer Basic Specialist

(Combat Engineer Basic)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 4–13 weeks (160–407 hours).

Exhibit Dates: 6/62–12/68.

Objectives: To train enlisted personnel to use hand and power tools and to construct buildings and bridges.

Instruction: Lectures and practical exercises in hand and power tool operation; building layout; foundations and forms; roof, floor, and wall construction; concrete construction; various types of bridges; road maintenance and repair; drainage and ditching; and culvert construction.

Credit Recommendation: In the vocational certificate category, 1 semester hour in hands-on construction (5/74).

MC-1710-0021

Welders

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 6 weeks (185 hours).

Exhibit Dates: 5/62–12/68.

Objectives: To train enlisted personnel in the principles and techniques of oxyacetylene, electric, and inert-gas welding.

Instruction: Lectures and practical exercises in the principles and techniques of oxyacetylene, electric, and inert-gas welding. Course includes oxyacetylene and electric arc welding in flat, vertical, horizontal, and overhead positions; safety precautions; cutting procedures; brazing ferrous and nonferrous metals; soldering techniques; procedures for hard-surfacing metals; procedures for welding armor plate; and tungsten inert-gas welding procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in welding (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in welding (5/74).

MC-1710-0022

Tracked Vehicle Maintenance Officer/Staff Noncommissioned Officer Management

(Tracked Vehicle Maintenance Management)

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 3–4 weeks (125–163 hours).

Exhibit Dates: 1/72–12/74.

Objectives: To train commissioned officers and senior staff NCOs to manage a tracked-vehicle maintenance group.

Instruction: Lectures and practical exercises in the management of a tracked-vehicle maintenance group. Course includes tracked-vehicle familiarization, supply maintenance, and maintenance management.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (7/74).

MC-1710-0023

Weapons Repair Officer

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 9 weeks (360 hours).

Exhibit Dates: 7/58–12/73.

Objectives: To train company grade officers to maintain and repair infantry and artillery weapons, including guided missile and free-rocket launchers and related control equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of infantry and artillery weapons. Course includes repair shop procedures, artillery fundamentals, artillery weapons repair, tank gun mount, guided missile launcher, and inspection and repair of infantry weapons.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in mechanical or industrial technology (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in mechanical or industrial technology (7/74).

MC-1710-0024

Engineer Equipment Mechanic Foreman

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 19 weeks (537 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To train enlisted personnel to supervise the repair of engineer equipment, diesel engines, and gasoline- and diesel-powered construction equipment.

Instruction: Lectures and practical exercises in the supervision of the repair of engineer equipment, diesel engines, and gasoline- and diesel-powered construction equipment, including maintenance and replacement of diesel engines, TD 18-A tractors, gasoline engines, M-R-S tractors, hystaway cranes, tandem rollers, air compressors, cranes, crawler crane shovels, graders, TD 24 tractors, well rigs, concrete mixers, and ditchers.

Credit Recommendation: In the vocational certificate category, 10 semester hours in heavy equipment programs, 4 in automotive area, 4 in diesel mechanics area (7/74); in the lower-division baccalaureate/associate degree category, 10 semester hours in heavy equipment, 4 in automotive area, 4 in diesel mechanics area (7/74).

MC-1710-0025

JOURNEYMAN ENGINEER EQUIPMENT MECHANIC

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 23 weeks (872 hours).

Exhibit Dates: 7/70–Present.

Objectives: To upgrade training of engineer equipment mechanics.

Instruction: Lectures and practical exercises in principles of operation, construction and components of internal combustion engines; operation and repair of the mechanical, air, and hydraulic systems of mobile material handling equipment, tractors, cranes, graders, air compressors, and rock crushers.

Credit Recommendation: In the vocational certificate category, 5 semester hours in internal combustion engines repair, 2 in mobile material handling equipment repair, 5 in tractors and tractor attachment repair, 5 in crawler and truck mounted crane repair, 2 in grader repair, and 1 in stationary equipment repair (air compressors and rock crushers) (6/75); in the lower-division baccalaureate/associate degree category, 5 semester hours in internal combustion engines, 2 in material handling and 3 in engineering equipment (6/75).

MC-1710-0026

ENGINEER EQUIPMENT FOREMAN

Course Number: None.

Location: Engineer School Battalion, Cp. Lejeune, NC.

Length: 19 weeks (678 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To train officers to supervise the operation of tractors, shovels, cranes, and other road machinery.

Instruction: Lectures and practical exercises in heavy equipment operation and supervision, including tractors, shovels, cranes, and road machinery; diesel engine principles; construction planning; administration and supply procedures; and safety precautions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in heavy construction, 6 in heavy equipment operation (4/74).

MC-1710-0027

ARTILLERY WEAPONS REPAIRMAN (ADVANCED)

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 6 weeks (226–229 hours).

Exhibit Dates: 7/60–12/68.

Objectives: To train noncommissioned officers to supervise the repair of artillery.

Instruction: Lectures and practical exercises in shop management and operation; inspection, disassembly, repair, reassembly, and testing of artillery, tank weapons, and mortars.

Credit Recommendation: In the vocational certificate category, 2 semester hours in mechanical technology (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical technology (5/74).

MC-1710-0028

TURRET REPAIRMAN

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 2 weeks (91 hours).

Exhibit Dates: 2/72–Present.

Objectives: To train noncommissioned officers to diagnose and repair turret mounted artillery.

Instruction: Lectures and practical exercises in the operation and diagnosis of malfunctions of several types of artillery mounted on turrets and the turret operating mechanisms to include procedures for correction of malfunctions.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in mechanical repair technology (5/74).

MC-1710-0029

WEAPONS TECHNICIAN

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 9 weeks (368 hours).

Exhibit Dates: 6/64–12/68.

Objectives: To train personnel to supervise and manage weapons repair facilities.

Instruction: Lectures and practical exercises in basic machine shop practices; organization and administration of repair shops; disassembly, assembly, inspection, repair, and troubleshooting of specific weapons and ancillary equipment to include grenade launchers, rifles, machine guns, hand guns, mortars, rifle scopes, and howitzers.

Credit Recommendation: In the vocational certificate category, 4 semester hours in mechanical technology, 1 in introduction to machine shop (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in industrial management, 3 in mechanical technology, 1 in introduction to machine shop (5/74).

MC-1714-0001

JOURNEYMAN ELECTRICIAN

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 18 weeks (434 hours).

Exhibit Dates: 11/70–Present.

Objectives: To provide selected enlisted personnel with the knowledge and skills required to perform as journeymen electricians.

Instruction: Coverage of AC/DC electrical theory, including reactance and impedance, interior wiring, pole line construction, motors, generators; supply procedures and organization.

Credit Recommendation: In the vocational certificate category, 15 semester hours in electrical technology (11/73).

MC-1714-0002

ELECTRICAL EQUIPMENT REPAIRMAN

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 13 weeks (503 hours).

Exhibit Dates: 9/68–Present.

Objectives: To train technicians in the repair of electrical equipment and control devices with particular emphasis upon the repair of field power-generating equipment.

Instruction: Mathematics; theory of electricity and simple electrical components; AC and DC current and circuit components; electronics and electronic devices; control devices and their circuits; DC and AC motors and generators; internal-combustion engines; troubleshooting electrical systems; supply and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electrical technology (11/73).

MC-1714-0003

1. BASIC ELECTRICIAN
2. ELECTRICIAN
3. ELECTRICIAN

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 6 weeks (220 hours). *Version 2:* 4 weeks (160 hours). *Version 3:* 12 weeks (359 hours). *Version 4:* 18 weeks (524 hours).

Exhibit Dates: *Version 1:* 7/71–Present. *Version 2:* 9/68–6/71. *Version 3:* 6/62–8/68. *Version 4:* 7/58–5/62.

Objectives: To provide enlisted personnel with basic training in generator operation, pole line construction, and interior wiring.

Instruction: Lectures and laboratories in basic electrical theory, motor controls, generator operation, pole line construction, and interior wiring.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electricity, 1 in electrical laboratory (12/77). *Version 2:* In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (3/74). *Version 3:* In the vocational certificate category, 6 semester hours in electricity, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, 1 in electrical laboratory (3/74). *Version 4:* In the vocational certificate category, 6 semester hours in electricity, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, 1 in electrical laboratory (3/74).

MC-1714-0004

TELEPHONE REPAIR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 22 weeks (770 hours).

Exhibit Dates: 7/58–12/72.

Objectives: To train enlisted personnel to install and maintain telephone equipment.

Instruction: Lectures and laboratories in DC and AC circuits; simple motors and generators; meters and tools; control office, switchboard, and customer telephone equipment; and teletype equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, 1 in electrical laboratory (3/74).

MC-1714-0005

Wire Chief

Course Number: None.
Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Sub Unit 2, San Diego, CA.
Length: 14–20 weeks (496–653 hours).
Exhibit Dates: 1/72–Present.
Objectives: To train personnel to supervise the installation of telephone lines and telephone subscriber equipment.
Instruction: Lectures and practical exercises in oral and written communications skills, personnel management concepts, map reading, radio procedure, electronic fundamentals and basic electricity, telephone line techniques, field wire equipment and related systems, station installation, and pole line construction.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical installation (3/79).

MC-1714-0006

Electricians

Course Number: Not available.
Location: Engineer School Battalion, Cp. Lejeune, NC.
Length: 15 weeks (390 hours).
Exhibit Dates: 2/56–12/68.
Objectives: To train enlisted personnel to install, operate, maintain, and repair electrical systems and equipment of the Fleet Marine Force.
Instruction: Lectures and practical exercises in the installation, operation, maintenance and repair of electrical systems and equipment of the Fleet Marine Force, including electrical theory and principles, internal-combustion engines, electric motors and generators, electrical distribution and construction, and interior wiring methods and materials.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electricity, 6 in electrical construction and maintenance (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity, and 6 in electrical construction and maintenance on the basis of instutional evaluation (4/74).

MC-1714-0007

Field Wireman (FWMC)

Course Number: None.
Location: Communication-Electronics School, Twentynine Palms, CA.
Length: 4 weeks (140 hours).
Exhibit Dates: 7/72–12/73.
Objectives: To train personnel as field wiremen in the Fleet Marine force.
Instruction: Lectures and practical exercises on the responsibilities of field wiremen, including integrated multichannel communication means, switchboard operators perocedure, manual switchboards SB-22/PT and SB-86/P, telegraph-telephone terminal groups AN/TCC-29, field communications, pole climbing techniques, pole line construction, inside wire routing, raising and setting poles and stubs, and suspension strand installation.
Credit Recommendation: In the vocational certificate category, 4 semester hours in lineman occupation (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical technology (6/74).

MC-1715-0001

Technician Electronic Counter-Countermeasures

Course Number: None.
Location: Communication-Electronics School Battalion, San Diego, CA.
Length: 4 weeks (96 hours).
Exhibit Dates: 10/69–12/73.
Objectives: To qualify technicians in the techniques and application of electronic counter-countermeasures.
Instruction: Specific circuit theory; recognition, corrective and/or defensive action taken to combat various types, methods and characteristics of electronic countermeasures which may be encountered by a MACS in an electronic warfare environment.
Credit Recommendation: Credit is not recommended because of the military nature of the course (11/73).

MC-1715-0002

Officer Electronic Warfare

Course Number: None.
Location: Communication-Electronics School, San Diego, CA.
Length: 2 weeks (98 hours).
Exhibit Dates: 8/69–Present.
Objectives: To provide instruction to qualify officers in the techniques and application of electronic warfare.
Instruction: History, concepts, terminology and application of past, present, and future techniques; specific circuit theory; recognition, corrective, and/or defensive action taken to combat various types of jamming; methods and characteristics of electronic countermeasures.
Credit Recommendation: Credit is not recommended because of the military nature of the course (11/73).

MC-1715-0003

1. Artillery Electronic Equipment Repairman
2. Artillery Electronic Equipment Repair

Course Number: None.
Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.
Length: 9–11 weeks (318–407 hours).
Exhibit Dates: *Version 1:* 7/74–Present. *Version 2:* 1/72–6/74.
Objectives: To train enlisted personnel to test, troubleshoot, and maintain specific military equipment.
Instruction: Introduction to field artillery electronics equipment, including maintenance and repair of a radar chronograph, microwave distance-measuring equipment, field artillery digital computer, and associated equipment.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in communications technology (2/76). *Version 2:* No credit because of the limited specialized nature of the course (11/73).

MC-1715-0004

1. Basic Electronics
2. Basic Electronics
3. Electronic Fundamentals
4. Basic Electronics
5. Basic Electronics

Course Number: None.
Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms,CA; Communication-Electronics School, Twentynine Palms,CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, San Diego, CA. *Version 5:* Communication-Electronics School, San Diego, CA.
Length: *Version 1:* 10–12 weeks (459 hours). *Version 2:* 10–12 weeks (359–370 hours). *Version 3:* 18 weeks (668 hours). *Version 4:* 15 weeks (525 hours). *Version 5:* 15 weeks (516–525 hours).
Exhibit Dates: *Version 1:* 10/75–Present. *Version 2:* 7/74–9/75. *Version 3:* 1/72–6/74. *Version 4:* 3/68–12/71. *Version 5:* 7/60–2/68.
Objectives: To train enlisted personnel in the fundamentals of electronics.
Instruction: *All Versions:* Lectures and practical experience in electrical principles, vacuum tube and semiconductor fundamentals, electronic circuit analysis, and digital and circuit principles. *Version 1:* Includes 70 hours of lectures and practical exercises in the use of digital machines and devices; logic design, Boolean algebra,and block diagrams; logic circuitry; characteristics of hardware and operations of magnetic drum, tape, disc, magnetic care,and other storage devices; analog to digital conversion.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics mathematics, 3 in basic electricity, 3 in basic electronics, 2 in digital circuit fundamentals, 1 in instruments and meusurements, 2 in basic computer logic (3/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 2 in digital systems fundamentals, 2 in basic computer logic (2/79); in the upper-division baccalaureate category, 6 semester hours in industrial arts education for basic electronics (3/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 9 semester hours in industrial electronics technology (2/76). *Version 3:* In the vocational certificate category, 18 semester hours in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 3 in computers (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74). *Version 4:* In the vocational certificate category, 18 semester hours in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 3 in computers (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74). *Version 5:* In the vocational certificate category, 18 semester hours in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 3 in computers (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity and electronics, additional credit in laboratory on the basis of institutional evaluation (12/68).

MC-1715-0005

Technician Theory

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communation-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 16 weeks (620 hours). *Version 2:* 16 weeks (599–714 hours). *Version 3:* 20 weeks (700 hours). *Version 4:* 20 weeks (700 hours).

Exhibit Dates: *Version 1:* 7/77–Present. *Version 2:* 7/74–6/77. *Version 3:* 3/72–6/74. *Version 4:* 3/68–2/72.

Objectives: To provide enlisted personnel with training in advanced electronic theory as a foundation for equipment-oriented instruction in radar, aviation, and radio technology.

Instruction: *All Versions:* Lectures and practical laboratory applications in DC and AC circuit analysis, mathematics and physics, electron tube and transistor theory, amplifier circuit analysis, oscillators, switching circuits, power supplies, principles of digital computers, microwave characteristics and devices (including general theory), synchros and servos, modulation and detection, antennas and test instruments. *Version 1:* Encompasses a thorough review of mathematics, and general theoretical principles of electronics. Includes AC/DC electricity, test instruments, soldering and repair techniques to NASA specs, and 73 hours of military management principles.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronics mathematics, 6 in basic electronics, 6 in electronics systems and applications, 6 in digital circuitry, 3 in communication skills (3/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics systems and applications, 3 in mathematics, 6 in basic electronics, 3 in digital circuitry, 3 in communication skills (3/79); in the upper-division baccalaureate category, 6 semester hours in industrial arts education for basic electronics, 3 in management/communication skills (3/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 21 semester hours in electronics engineering technology (2/76). *Version 3:* In the vocational certificate category, certificate in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 16 semester hours in electricity or electronics, 4 in mathematics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74); in the upper-division baccalaureate category, 6 semester hours in computers, servos, and machinery (3/74). *Version 4:* In the vocational certificate category, certificate in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 16 semester hours in electricity or electronics, 4 in mathematics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0006

MOBILE COMMUNICATIONS CENTRAL TECHNICIAN (AN/TGC-37(V))

(Communication Central, AN/TGC-37, system Maintenance)

(Mobile Communication Central Technician)

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 7 weeks (257 hours). *Version 2:* 6 weeks (210 hours).

Exhibit Dates: *Version 1:* 11/77–Present. *Version 2:* 1/72–10/77.

Objectives: To train enlisted personnel in the operation, maintenance, and repair of specific types of telegraph systems.

Instruction: Practical experience in the maintenance, operation, repair and systems analysis of patch panels and switchboards, voice frequency telegraphs, and test equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 senester hours in introduction to telephone and telegraph communications (3/79). *Version 2:* Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0007

TERMINAL EQUIPMENT THEORY

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 5–6 weeks (242–320 hours). *Version 2:* 8 weeks (242–320 hours). *Version 3:* 8 weeks (242–320 hours). *Version 4:* 8 weeks (242–320 hours).

Exhibit Dates: *Version 1:* 5/79–Present. *Version 2:* 11/77–4/79. *Version 3:* 7/74–10/77. *Version 4:* 1/72–6/74.

Objectives: To train enlisted personnel in the theory and principles of digital computer circuits and systems.

Instruction: *Version 2:* Laboratories and lectures in the theory of operation and troubleshooting of a central purpose digital computer; basic logic circuits; repair of PC cards and digital circuits. *Version 3:* Lectures and laboratories in basic logic circuits, theory of operation and troubleshooting of a central purpose digital computer; repair of PC cards and digital circuits. *Version 4:* Lectures and laboratories in basic logic circuitry, theory of operation and troubleshooting of the Bi-Tran 6 and TH-85, and use of dual-trace oscilloscopes and pace kits.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the vocational certificate category, 3 semester hours in digital circuits, 3 in computer principles (3/79); in the lower-division baccalaureate/associate degree category, credit in digital computers and computer principles on the basic of institutional evaluation (3/79). *Version 3:* In the lower-division baccalaureate/associate degree category, 7 semester hours in electronic engineering technology (2/76). *Version 4:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

MC-1715-0008

RADIO RELAY REPAIR

Course Number: None.

Location: *Version 1:* Communications-Electronics School, Twentynine Palms, CA. *Version 2:* Communications-Electronics School, San Diego, CA. *Version 3:* Communications-Electronics School, San Diego, CA.

Length: *Version 1:* 11 weeks (385 hours). *Version 2:* 16 weeks (560 hours). *Version 3:* 12–14 weeks (420–490 hours).

Exhibit Dates: *Version 1:* 12/71–12/73. *Version 2:* 12/68–11/71. *Version 3:* 7/58–11/68.

Objectives: To train radio repairmen to repair and maintain telephone-telegraph terminal equipment.

Instruction: Lectures and laboratories in the principles of multiplexing and the theory, operation, and maintenance of telephone-telegraph equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electrical laboratory, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 2 semester hours in electrical laboratory, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

MC-1715-0009

GROUND RADIO REPAIR

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 19 weeks (704 hours). *Version 2:* 15 weeks (542 hours). *Version 3:* 15 weeks (525 hours). *Version 4:* 7–12 weeks (245–420 hours).

Exhibit Dates: *Version 1:* 5/78–Present. *Version 2:* 7/74–4/78. *Version 3:* 1/72–6/74. *Version 4:* 7/56–12/71.

Objectives: To train enlisted personnel to operate, test and repair ground radio equipment.

Instruction: Lectures and laboratories in FM radio equipment maintenance, including transmitter, receiver, and special circuits operation; and various alignment, testing, overhaul and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in communications equipment maintenance (3/79) *Version 2:* In the vocational certificate category, 8 semester hours in communications technology (2/76). *Version 3:* In the vocational certificate category, 3 semester hours in electronics, 1 in electrical laboratory (3/74). *Version 4:* In the vocational certificate category, 3 semester hours in electronics, 1 in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0010

Radio Fundamentals

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 6 weeks (225 hours). *Version 2:* 6 weeks (240 hours). *Version 3:* 6 weeks (210–240 hours).

Exhibit Dates: *Version 1:* 7/74–Present. *Version 2:* 1/72–6/74. *Version 3:* 7/61–12/71.

Objectives: To prepare enlisted military personnel to maintain, test, adjust, and repair specific military radio sets.

Instruction: *All Versions:* Lectures and practical exercises in theory, circuitry, operation, and repair of tube and transistorized AM, SSB, and VHF transceivers. *Version 2:* Includes emergency power generators.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in communication technology (2/76). *Version 2:* In the vocational certificate category, 6 semester hours in electronic communications, 2 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communication, 1 in electronic communications laboratory (3/74). *Version 3:* In the vocational certificate category, 6 semester hours in electronic communications, 2 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communications (12/68).

MC-1715-0011

Aviation Radio Repair

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 11–12 weeks (454–565 hours). *Version 2:* 8–15 weeks (350–490 hours).

Exhibit Dates: *Version 1:* 4/76–Present. *Version 2:* 7/58–3/76.

Objectives: To train enlisted personnel to install, inspect, maintain, and repair aviation and ground communication-electronics equipment.

Instruction: Lectures and practical exercises in operating characteristics, installation techniques, circuitry, ultrahigh frequency principles, single-sideband theory, and cryptographic maintenance concepts of the TSEC/KY-28 security system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance, 1 in electronic equipment maintenance laboratory (3/79). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications, 1 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

MC-1715-0012

Telephone Technician

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 24 weeks (840 hours).

Exhibit Dates: 7/56–12/72.

Objectives: To train enlisted personnel in the maintenance of specific wire telephone systems.

Instruction: Lectures and practical exercises in basic mathematics and electricity, wire telephone techniques, teletype and terminal equipment maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in math and electricity, 1 in laboratory (3/74).

MC-1715-0013

Telephone-Teletype Repair

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: 16–19 weeks (560–665 hours).

Exhibit Dates: 7/62–Present.

Objectives: To train enlisted personnel who have completed a basic electronics course to repair telephone/teletype equipment.

Instruction: Lectures and laboratories in telephone/teletype equipment repair procedures, and testing, adjustment, modification, maintenance, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephony, 1 in telephony laboratory (3/74).

MC-1715-0014

Sound Equipment Repair

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train enlisted personnel to install, maintain, and repair audio equipment.

Instruction: Lectures and laboratories in audio theory; tape recorders; PA systems; sound-locating equipment; intercom equipment; and mine detector installation, maintenance, and repair.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics (3/74).

MC-1715-0015

Terminal Equipment Repair

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 7 weeks (245 hours).

Exhibit Dates: 7/56–12/68.

Objectives: To train enlisted personnel to repair specific telephone and telegraph equipment.

Instruction: Lectures and practical exercises in the fundamentals of telephony and telegraphy, local terminals, radio transmission, troubleshooting, and field applications.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0016

Telephone System, Transportable AN/TTC-28

Course Number: None.

Location: Communication-Electronics School, Twentynine Palms, CA; Air Ground Combat Training Center, Twentynine Palms, CA.

Length: 6 weeks (210 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train central office repairmen to test, adjust, modify, and repair the AN/TTC-28 transportable telephone system in field maintenance support shops.

Instruction: Lectures include telephone systems introduction, telephone schematic diagram familiarization, and system installation, troubleshooting, and repair procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in telephony, 1 in telephony laboratory (3/74).

MC-1715-0017

Marine Tactical Data Systems (MTDS) Fundamentals

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 11 weeks (385 hours).

Exhibit Dates: 5/66–12/68.

Objectives: To provide enlisted personnel with training in basic theory of special-purpose semiconductor and electronic circuits used in digital data handling equipment.

Instruction: Lectures and practical demonstrations in solid-state devices and circuits, counters and other computer circuits, number systems, Boolean algebra and reduction, logic gates, symbolic logic truth tables, Vietch diagrams, voltage dividers, semiconductor basics, electronic safety measures, transistor review, oscillators, various diodes, oscilloscopes, radar fundamentals, amplifiers, power supplies, data system servicing techniques and peripheral equipment fundamentals, and data system tactical air operations central timing and control functions.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer technology, 4 in solid-state electronics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer technology, 3 in solid-state electronics, and, on the basis of institutional evaluation, credit in electrical laboratory (3/74); in the upper-division baccalaureate category, 2 semester hours in digital systems, 2 in solid-state electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

MC-1715-0018

Digital Repair

(Tactical Air Operations Central (TAOC) Digital Repair)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 14 weeks (490 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To train enlisted personnel to operate, install, adjust, and repair the digital section of the Tactical Air Operations Data System.

Instruction: Lectures and demonstrations in radar IFF data processor group, polar-to-Cartesian converter, correlator, height finder programmer and buffer, automatic tracking unit, intercept computer, information and action unit, operation and maintenance unit, drum fill unit, power distribution and power supplies, basic functioning, installation, adjustment, and repair; supply administration; preventive maintenance;

maintenance publications; and peripheral equipment fundamentals.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0019

DATA HANDLING REPAIR
(Tactical Air Operations Central (TAOC) Data Handling Repair)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 14 weeks (490 hours).

Exhibit Dates: 7/67-12/68.

Objectives: To train enlisted personnel to operate, install, adjust, and repair tactical data systems data-handling sections.

Instruction: Lectures and laboratories in circuitry and functioning of digital data programmers, digital data buffers, intercenter data terminals, tactical data communication central buffers, missile battery data terminals, teletype programmers, teletype buffers, intercommunications, communication central groups, operation and maintenance, and power distribution.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0020

TACTICAL AIR COMMAND CENTRAL (TACC AN/TYQ-1) REPAIR

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 17 weeks (699 hours). *Version 2:* 15-18 weeks (557-623 hours).

Exhibit Dates: *Version 1:* 11/78-Present. *Version 2:* 6/73-10/78.

Objectives: To train enlisted personnel to install, maintain, and repair the tactical air command central and its module and card subassemblies.

Instruction: Lectures and practical exercises in maintenance test procedures, use of tools and test equipment, digital test sets, integral test features, diagnostic routines, and special failure-reporting procedures, and familiarization with marine, naval, and airborne tactical data systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in use of electronic test equipment (3/79). *Version 2:* Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0021

MARINE TACTICAL DATA SYSTEM (MTDS) WEAPONS CONTROLLER/OPERATOR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 4 weeks (175 hours).

Exhibit Dates: 7/69-12/73.

Objectives: To train air controllers to operate and supervise AN/TYA-9 operator shelters.

Instruction: Lectures and practical exercises in manual target detection, acquisition, and rate-aided tracking; automatic detection, acquisition, and tracking of aircraft; and identification of air targets on the basis of flight plans, identification friend-or-foe (IFF) data, speed, communication checks, aircraft orbit points, and prearranged maneuvers. Controllers also learn computer-aided track evaluation and weapon target pairing. Operators also learn automatic vectoring of data link-equipped aircraft and voice control of non-data-link-equipped aircraft.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/74).

MC-1715-0022

TACTICAL DATA SYSTEM HANDLING REPAIR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 14 weeks (483 hours).

Exhibit Dates: 6/69-12/73.

Objectives: To train enlisted personnel to maintain tactical data system equipment and associated subunits and circuits.

Instruction: Lectures and laboratories in external and internal digital data links, ground-air-ground data communication, tactical data communication teletype systems, data line programmers and buffers, data link terminals, intercoms, voice communication apparatus, display generation equipment, and data-handling equipment maintenance.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory or computer technology on the basis of institutional evaluation (3/74).

MC-1715-0023

ANALOG REPAIR
(Tactical Air Operations Central (TAOC) Analog Repair)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 14 weeks (490 hours).

Exhibit Dates: 7/67-12/68.

Objectives: To train enlisted personnel as tactical data systems analog repairmen.

Instruction: Lectures and laboratories in system operation, installation, and repair; interrelation of subunits and circuits; corrective and preventive maintenance procedures; and use of test equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

MC-1715-0024

MICROWAVE EQUIPMENT OPERATOR (MEOC)

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 3-4 weeks (105-127 hours).

Exhibit Dates: 7/72-Present.

Objectives: To train enlisted personnel to operate microwave equipment.

Instruction: Lectures in microwave propagation, technical manuals introduction, safety precautions, receiver and transmitter analysis, various radio sets analyses, multiplexer analysis and alignment procedures, profile graphs preparation, and preventive maintenance and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/74).

MC-1715-0025

RADIO OPERATOR

Course Number: None.

Location: Air Station, Cherry Point, NC.

Length: 16 weeks (640 hours).

Exhibit Dates: 7/58-12/68.

Objectives: To train officers and enlisted personnel as radio operators.

Instruction: Lectures and practical exercises in code reception and transmission, radiotelegraph procedures, radiotelephone procedures, primary electronics theory, aviation electronics equipment, communications publication, general communications, and preflight and flight procedures.

Credit Recommendation: Insufficient data for evaluation (3/74).

MC-1715-0026

TACTICAL DATA COMMUNICATIONS CENTRAL TECHNICIAN
(Tactical Data Communications Central (TDCC AN/TYQ-3) Technician)

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 23-24 weeks (846-847 hours). *Version 2:* 44 weeks (1540 hours).

Exhibit Dates: *Version 1:* 11/76-Present. *Version 2:* 12/71-10/76.

Objectives: To train enlisted personnel to install, operate, test, and maintain data communications systems.

Instruction: *Version 1:* Lectures and practical exercise in the operation and maintenance of a specific tactical data communications system. Topics include systems concepts, programming, data flow, and fault isolation. *Version 2:* Lectures and practical exercises in the operation and maintenance of tactical data communications central, including basic digital system theory and computer fundamentals, SSB, transmission lines, MODEMS, components of equipment, and maintenance and troubleshooting of specific functional digital circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in computer systems maintenance (3/79). *Version 2:* In the vocational certificate category, 6 semester hours in electronics or digital communications, 6 in electronics or digital communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or digital communications, 2 in electronics or digital communications laboratory (3/74); in the upper-division baccalaureate category, 3 semester hours as an elective in electronics or digital communications (3/74).

MC-1715-0027

TEST INSTRUMENT REPAIRMAN

Course Number: None.

Location: Supply Center, Albany, GA.

Length: 16-17 weeks (622-648 hours).

Exhibit Dates: 6/69-Present.

Objectives: To train enlisted personnel who have prior training in basic electronics and radar fundamentals to maintain and repair electrical and electronic test and measuring instruments.

Instruction: Lectures and practical exercises in the maintenance of electrical and electronic test and measuring instruments, including general and specialized electronic theory, logical troubleshooting, circuit analysis, and basic measurement methods and techniques.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics, 6 in electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics, 3 in microwave electronics, 3 in electronics or microwave laboratory (6/75); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (6/75).

MC-1715-0028

Telephone Teletype Repair (Special)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 14 weeks (490 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train enlisted personnel to maintain and repair teletype and telephone systems.

Instruction: Lectures and practical experience in the maintenance and repair of teletype and telephone systems, including electrical and mechanical fundamentals, basic electronic circuitry, transistor operation, and troubleshooting and adjustment techniques.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electromechanical communications, 5 in electromechanical communications laboratory (3/74).

MC-1715-0029

Radio Technician

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, San Diego, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 15–18 weeks (558–667 hours). *Version 2:* 13 weeks (455 hours). *Version 3:* 15 weeks (525–538 hours). *Version 4:* 30–32 weeks (1050–1120 hours).

Exhibit Dates: *Version 1:* 7/75–Present. *Version 2:* 6/73–6/75. *Version 3:* 8/67–5/73. *Version 4:* 5/62–7/67.

Objectives: To train electronics technicians to test, adjust, and repair communication-electronics equipment.

Instruction: *All Versions:* Lectures and demonstrations in multichannel single-sideband equipment theory and servicing. *Version 1:* Includes portable radio servicing methods. *Version 2:* Instruction includes troposcatter communications systems theory and servicing, direction-finding equipment, and limited cryptographic maintenance. *Version 3:* Instruction includes troposcatter communications systems theory and servicing, direction-finding equipment, and limited cryptographic maintenance. *Version 4:* Instruction includes extensive coverage of mathematics, electron devices and circuits, antennas, and AM and FM systems. All material is general in nature.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance, 3 in electronic communication systems (3/79); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic equipment maintenance laboratory (3/79). *Version 2:* In the vocational certificate category, 6 semester hours in electronics, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics (3/74). *Version 3:* In the vocational certificate category, 6 semester hours in electronics, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics (3/74). *Version 4:* In the vocational certificate category, 9 semester hours in electronics, 3 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electrical laboratory (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in electrical laboratory (3/74).

MC-1715-0030

Communications Central Group AN/TYA-11 Technician

Course Number: None.

Location: Communication-Electronics School, Twentynine Palms, CA.

Length: 4 weeks (140 hours).

Exhibit Dates: 6/72–12/73.

Objectives: To train radio technicians to test, adjust, and repair a specific communications terminal system.

Instruction: Lectures and practical exercises in the maintenance and repair of the AN/TYA-11 communications central group, including block-diagram and module-by-module analysis of individual system components, theory of operation, and circuits, antennas, and power distribution information necessary for inspection and testing of equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74).

MC-1715-0031

Air Support Operations Operator

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 3–6 weeks (109-240 hours).

Exhibit Dates: 1/72–Present.

Objectives: To provide instruction in the operations and tactical employment of a Direct Air Support Center, Radar Directing Center, and Airborne/Mobile Direct Air Support Center.

Instruction: Lectures and practical exercises in net operator tasks; installation of power connections, air conditioners, antennas, telephone connections, and external transceiver connections; operation of plotter and status board keepers; and ASRT radar operating procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/79).

MC-1715-0032

Airborne Radio Operators

Course Number: Not available.

Location: Airborne Operator School, Cherry Point, NC.

Length: 16 weeks (615 hours).

Exhibit Dates: 3/62–Present.

Objectives: To train enlisted personnel as airborne radio operators.

Instruction: Lectures and practical exercises in international Morse code, code typing, code printing, net operations, and sending and receiving; general radio operating procedures and radiotelegraph and radiotelephone messages; and airborne electronics and equipment.

Credit Recommendation: In the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

MC-1715-0033

1. Aviation Fire Control Repair
2. Aviation Fire Control Repair, AN/TPQ-10 (AFC) (Aviation Fire Control Repair)
3. Aviation Fire Control Repair
4. Aviation Fire Control Repair

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, San Diego, CA. *Version 4:* Basic Electronics School, San Diego, CA.

Length: *Version 1:* 8–9 weeks (327–328 hours). *Version 2:* 9 weeks (315 hours). *Version 3:* 8 weeks (280 hours). *Version 4:* 9 weeks (315 hours).

Exhibit Dates: *Version 1:* 7/74–Present. *Version 2:* 1/72–6/74. *Version 3:* 5/64–12/71. *Version 4:* 7/56–4/64.

Objectives: To provide enlisted personnel who have completed a basic electronics fundamentals course with the technical skills required of aviation fire control repairmen.

Instruction: *Version 1:* Preparation of enlisted personnel in overall concept of operation, installation, and adjustment of military aircraft course directing radar systems. Includes corrective and preventive maintenance procedures; use of test equipment and inherent testing procedures. *Version 2:* Lectures and laboratories in power and control circuits, radar circuits, automatic tracking circuits, computers, and ancillary equipment. *Version 3:* Lectures and laboratories in power and control circuits, radar circuits, automatic tracking circuits, computers, and ancillary equipment. *Version 4:* Lectures and laboratories in theory, maintenance, and troubleshooting of radar sets and computer-transmitter sets.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance (3/79) *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the lower-division boccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74). *Version 3:* In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 4:* Insufficient data for evaluation (3/74).

MC-1715-0034

Light Antiaircraft Artillery (AAA) Fire Control Repair

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 16 weeks (560 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train enlisted personnel to operate and maintain lightweight air search radar and fire control systems for lightweight aircraft artillery.

Instruction: Lectures and laboratories in circuit analysis, block diagrams, and field maintenance and operation of M-4 radars, M-10 computers, and M-16 power controls.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

MC-1715-0035

Tactical Data Systems Digital Repair

Course Number: None.

Location: Marine Corps Recruit Depot, San Diego, CA.

Length: 15 weeks (518 hours).

Exhibit Dates: 7/70-12/73.

Objectives: To train enlisted personnel to operate, install, and repair digital processing units and circuits of radar and IFF data processors.

Instruction: Lectures and practical exercises in radar IFF, logic circuitry, pulse circuits, display modules, digital repair, and universal console operations.

Credit Recommendation: In the vocational certificate category, 7 semester hours in digital electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in digital electronics laboratory (3/74).

MC-1715-0036

Light Anti-Aircraft Artillery (AAA) Fire Control Repair

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 16 weeks (560 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to operate, test, and repair light antiaircraft artillery.

Instruction: Lectures and laboratories in theory of operation and repair of the AN/GPG-1 radar set, T-37 computer, and T-21 power control. This is a highly specialized equipment course with limited academic value.

Credit Recommendation: Credit in not recommended because of the limited specialized nature of the course (4/74).

MC-1715-0037

Guided Missile Fire Control Repair

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 15 weeks (525 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to operate, maintain, test, and repair guided missile fire control systems.

Instruction: Lectures and practical exercises in theory of operation, installation and adjustment, and maintenance and troubleshooting of AN/MSG-3 systems. Highly specialized equipment course with limited educational value.

Credit Recommendation: Credit in not recommended because of the limited specialized nature of the course (4/74).

MC-1715-0038

Telephone Repair

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 22 weeks (770 hours).

Exhibit Dates: 6/56-12/68.

Objectives: To train enlisted personnel to inspect, test, and maintain basic telephone equipment and cabling.

Instruction: Lectures and laboratories in mathematics, electricity and magnetism, test equipment, power equipment, electronic supplies, teletype, cabling, and field wiring, with emphasis on repair procedures and troubleshooting. Specialized course with little educational value.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0039

Advanced Communications Officer

Course Number: None.

Location: Communication Officers School, Quantico, VA.

Length: *Version 1:* 42 weeks (1093 hours). *Version 2:* 42 weeks (1034-1108 hours).

Exhibit Dates: *Version 1:* 8/77-Present. *Version 2:* 8/75-7/77.

Objectives: To provide professional military education in communications and command and staff duties for Marine officers.

Instruction: Lectures, demonstrations, and self-paced studies in organization and tactics, amphibious operations, an overview of electrical circuits and electronics, management and command skills, leadership, operational telecommunications including propagation, antennas, modulation, multiplexing, and specialized military systems. Version 1 includes basic DC and AC circuits (excluding network analysis and three phase).

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in basic electrical circuits excluding laboratory (12/77); in the lower-division baccalaureate/associate degree category, 4 semester hours in basic electrical circuits excluding network analysis and laboratory (12/77). *Version 2:* No credit because of the limited specialized nature of the course (12/77).

MC-1715-0041

Aviation Radio Repair

Course Number: None.

Location: Basic Electronics School, San Diego, CA.

Length: 14 weeks (490 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to inspect, test, and maintain basic aviation radio equipment.

Instruction: Lectures and laboratories in theory of operation of radio circuits, test equipment, antennas, frequency modulators, and power supplies, with emphasis on use of test equipment and servicing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0042

Sound Equipment Repair

Course Number: Not available.

Location: Basic Electronics School, San Diego, CA.

Length: 6 weeks (210 hours).

Exhibit Dates: 7/56-12/68.

Objectives: To train enlisted personnel to operate, test, and maintain specific sound equipment.

Instruction: Lectures and practical exercises in audio and magnetic recording theory, and operation and maintenance of specific sound equipment, with emphasis on troubleshooting and servicing techniques.

Credit Recommendation: Credit in not recommended because of the limited specialized nature of the course (4/74).

MC-1715-0043

Marine Tactical Data System (MTDS) Technician

Course Number: Not available.

Location: Communication-Electronics School, San Diego, CA.

Length: 34 weeks (1388 hours).

Exhibit Dates: 7/67-12/68.

Objectives: To train enlisted personnel to install, repair, test, and maintain a tactical data system.

Instruction: Lectures and demonstrations on the operation of special-purpose computers and peripheral equipment; radar data processing and track store data processing; installation, operation, and repair of geographic display units, weapons control systems, bookkeeping elements, internal and external digital data links, and voice communication elements; memory access and monitoring; power supply and distribution; and operation of maintenance and testing equipment.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0044

Advanced Electrician

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 8 weeks (344 hours).

Exhibit Dates: 1/68-12/73.

Objectives: To provide enlisted personnel with advanced training in the servicing of electrical and electronic equipment.

Instruction: Lectures in basic mathematics, including graphs, logs, algebra, and trigonometry; electrical theory, including terminology, batteries, Ohm's law, electromagnetism, elementary AC circuits, series-parallel circuits, RLC combinations, bridges, conductors, and wiring; power generating equipment, including AC and DC motors, generators, transformers, construction, and characteristics; triodes, amplifiers, and magnetic amplifiers; electrical drawings and symbols; elementary tube electronics, power supplies, semiconductors introduction, diodes and transistors applications and testing procedures; solid-state regulators; and engine generator analyzer set operational testing procedures.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as an elective in electricity or electronics (4/74).

MC-1715-0045

Ground Radio Technician

Course Number: Not available.
Location: Communication-Electronics School, San Diego, CA.
Length: 24 weeks (840 hours).
Exhibit Dates: 7/56–Present.
Objectives: To train experienced communication-electronics equipment repairmen to install, inspect, maintain, and repair specific ground radio sets.
Instruction: Lectures and practical exercises in mathematics through trigonometry, vector algebra, and complex numbers; system circuits, vacuum tubes, power supplies, antennas, and test equipment maintenance and repair; high-frequency techniques; servicing procedures for special ground radio sets; and basic transistor theory as applied to radio receivers.
Credit Recommendation: In the vocational certificate category, 36 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics, 8 in electronics (4/74); in the upper-division baccalaureate category, 3 semester hours in radio and electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0046

Tactical Air Command Central (TACC) Technician

Course Number: None.
Location: Air Ground Combat Training Center, Twentynine Palms, CA.
Length: 24 weeks (875 hours).
Exhibit Dates: 12/78–Present.
Objectives: To train enlisted personnel to install and maintain the CP-808/CP-1018 at the systems level.
Instruction: Lectures and practical exercises in maintenance test procedures, use of tools, digital and analog test equipment, integral test features, diagnostic routines, and special failure-reporting procedures. Included is the interfacing of analog systems with specific computer logic systems.
Credit Recommendation: In the vocational certificate category, 3 semester hours in computer system software, 3 in computer interfacing and troubleshooting (3/79)

MC-1715-0047

Aviation Radio Technician

Course Number: None.
Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, San Diego, CA; Basic Electronics School, San Diego, CA.
Length: *Version 1:* 9–11 weeks (335–422 hours). *Version 2:* 24 weeks (840 hours).
Exhibit Dates: *Version 1:* 2/76–Present. *Version 2:* 7/56–12/68.
Objectives: To train maintenance personnel to install, inspect, maintain, and repair aviation radio equipment.
Instruction: *All Versions:* Lectures and practical exercises in circuits, vacuum tubes, power supplies, antennas, and test equipment operation and maintenance; high-frequency techniques; special aviation radio set servicing procedures; and basic transistor theory as applied to radio receivers. *Version 1:* Lectures and practical exercises relating to operational, adjustment, alignment, and performance verification procedures. Techniques refer to specific military electronic equipment. *Version 2:* Includes mathematics through trigonometry, vector algebra, and complex numbers.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance, 2 in electronic communication systems (3/79). *Version 2:* In the vocational certificate category, 36 semester hours in radio and electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in mathematics, 8 in electronics (4/74); in the upper-division baccalaureate category, 3 semester hours in radio and electronics and credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0049

Aviation Electronics Operator

Course Number: None.
Location: Communication-Electronics School, San Diego, CA.
Length: 5 weeks (175 hours).
Exhibit Dates: 7/58–12/68.
Objectives: To train enlisted personnel to locate aircraft on radar plotting, radio-radar status, and aircraft status boards, and to operate ground-based radio and radar used in tactical air control.
Instruction: Lectures and practical exercises in plotting techniques; basic radar theory; operation of radio and telephones, position indicators, height finders, direction finders, radio and radar jamming equipment, and air defense systems; weather; map reading; air traffic control procedures; search and rescue procedures; and aircraft recognition.
Credit Recommendation: Credit in not recommended because of the military nature of the course (3/74).

MC-1715-0050

Weapons Location Equipment Repair

Course Number: None.
Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.
Length: 4–5 weeks (140–173 hours).
Exhibit Dates: 1/72–Present.
Objectives: To train enlisted personnel to maintain and troubleshoot weapons location radar sets.
Instruction: Lectures and practical exercises in the maintenance and repair of weapons location radar sets, including fundamental concepts and technology of weapons location radar, power distribution, interpretation of radar schematics, circuit analysis, and alignment and troubleshooting.
Credit Recommendation: In the vocational certificate category, 2 semester hours in communications technology (2/76).

MC-1715-0051

Ground Radar Technician

Course Number: None.
Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, San Diego, CA. *Version 5:* Communication-Electronics School, San Diego, CA. *Version 6:* Communications-Electronics School, San Diego, CA.
Length: *Version 1:* 27 weeks (1004 hours). *Version 2:* 17 weeks (641 hours). *Version 3:* 17–20 weeks (595 hours). *Version 4:* 24–28 weeks (840–980 hours). *Version 5:* 20 weeks (700 hours). *Version 6:* 24 weeks (840 hours).
Exhibit Dates: *Version 1:* 4/79–Present; 4/79–3/79. *Version 2:* 7/75–3/79. *Version 3:* 1/72–6/74. *Version 4:* 7/62–12/71. *Version 5:* 7/58–6/62. *Version 6:* 7/56–6/58.
Objectives: To train enlisted personnel to test, troubleshoot, and maintain specific ground radar equipment.
Instruction: *All Versions:* Lectures and practical exercises in the installation, operation, and maintenance of radar sets. *Version 3:* Includes hostile fire surveillance radar, radar chronograph, tellurometers, radar beacons, Rawin sets, and FADAC. *Version 4:* Includes review of algebra and trigonometry, vacuum tubes, rectifiers, oscillators, multivibrators, basic electricity and magnetism, transistors, microwave theory, synchros and servo systems, and basic digital theory. *Version 5:* Includes review of algebra and trigonometry, vacuum tubes, rectifiers, oscillators, multivibrators, IFF equipment, Mk 10, indicator groups, Rawin sets, and radar beacons.
Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronic equipment maintenance (3/79). *Version 2:* In the vocational certificate category, 6 semester hours in communications technology (2/76). *Version 3:* Credit is not recommended because of the military-specific nature of the course (4/74). *Version 4:* In the vocational certificate category, 9 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68). *Version 5:* In the vocational certificate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68). *Version 6:* In the upper-division baccalaureate category, 3 semester hours in electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0052

Aviation Radar Repair (B)
(Aviation Radar Repairman (B))

Course Number: None.
Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, San Diego, CA.
Length: *Version 1:* 16–17 weeks (560–632 hours). *Version 2:* 13 weeks (455 hours). *Version 3:* 13 weeks (455 hours).
Exhibit Dates: *Version 1:* 11/73–Present. *Version 2:* 1/72–10/73. *Version 3:* 5/64–12/71.
Objectives: To train enlisted personnel to install, operate, adjust, inspect, and maintain computers and associated radar sets.
Instruction: *All Versions:* Lectures and practical exercises in tracing RF energy flows through the system; automatic frequency control; high-power pulsers; and system components. *Version 3:* Additional

circuit evaluation data on synchronizers, modulators, couplers, and transmitters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in communication technology (2/76). *Version 2:* Insufficient data for evaluation (4/74). *Version 3:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0053

Tactical Air Operations Central (TAOC AN/TYQ-2) Repair
(Tactical Air Operations Central Repairman (TAOCR))

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, Twentynine Palms, CA. *Version 4:* Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 18 weeks (657 hours). *Version 2:* 17-18 weeks (651-665 hours). *Version 3:* 21 weeks (729 hours). *Version 4:* 19 weeks (658 hours).

Exhibit Dates: *Version 1:* 11/77-Present. *Version 2:* 7/74-10/77. *Version 3:* 7/73-6/74. *Version 4:* 1/72-6/73.

Objectives: To train enlisted personnel to test, maintain, and repair defective circuit boards and modules in tactical air operations systems.

Instruction: *All Versions:* Lectures and practical exercises in usage of printed-circuit-board testers, multimeters, electronic and differential voltmeters, and function-generators; malfunction diagnosis and repair of subsystems. *Version 1:* Includes fault testing and repair of circuit cards in both digital and analog circuits and systems. *Version 2:* Topics include diagnostic techniques for specific system and introduction to overall operation and function of a military tactical air operations control Also includes fault testing and repair of circuit cards system. for flip-flops, logic gates, shift registers, and power supply modules. *Version 3:* Instruction includes module identification and repair, system logic operation identification and description, and display alignment and adjustment. Also includes fault testing and repair of circuit cards for flip-flops, logic gates, shift registers, and power supply modules. *Version 4:* Also includes fault testing and repair of circuit cards for flip-flops, logic gates, shift registers, and power supply modules.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in digital circuit fundamentals, 3 in instruments and measurements, 3 in electronic systems maintenance (3/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic systems maintenance (3/79); in the upper-division baccalaureate category, 3 semester hours in industrial arts education for basic electronics (3/79). *Version 2:* In the vocational certificate category, 12 semester hours in electronics technology (2/76). *Version 3:* In the vocational certificate category, 3 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 4:* Insufficient data for evaluation (4/74).

MC-1715-0054

Aviation Radar Repair (D)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 12 weeks (420 hours).

Exhibit Dates: 5/64-12/73.

Objectives: To train enlisted personnel to install, operate, and maintain ground radar and relay systems.

Instruction: Lectures and practical exercises in detailed circuit theory of power supplies, video decoders, radars, and data relays. This is a highly specialized equipment course with very little mathematics.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (4/74); in the upper-division baccalaureate category, credit in electricity and electronics on the basis of institutional evaluation (4/74).

MC-1715-0055

1. Aviation Radar Repair (A)
2. Aviation Radar Repair (A) (Aviation Radar Repair)
3. Aviation Radar Repair

Course Number: None.

Location: *Version 1:* Communication-Electronics School, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, San Diego, CA. *Version 3:* Basic Electronics School, San Diego, CA.

Length: *Version 1:* 16 weeks (560 hours). *Version 2:* 14-15 weeks (490-525 hours). *Version 3:* 10 weeks (350 hours).

Exhibit Dates: *Version 1:* 1/72-12/73. *Version 2:* 7/58-12/71. *Version 3:* 7/56-6/58.

Objectives: To train enlisted personnel who have completed an electronics and radar fundamentals course to install and maintain surveillance radar equipment.

Instruction: Lectures and practical exercises in circuit theory, circuit testing, corrective and preventive maintenance procedures, performance testing, use of associated test equipment, function and application of identification equipment, introduction to electronic warfare and electronic countermeasures. This course is directed toward specialized equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 2:* In the vocational certificate category, 6 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 3:* In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0056

Medium Antiaircraft Artillery (AAA) Fire Control Repair

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 16 weeks (560 hours).

Exhibit Dates: 7/54-12/68.

Objectives: To train enlisted personnel who have backgrounds in electronics and basic radar principles to maintain and repair the M-33 fire control system.

Instruction: Lectures and practical exercises in the maintenance and repair of the M-33 fire control system, including detailed circuit theory of power supplies, acquisition and tracking radar systems, computer and plotting boards, and tactical control and communications systems; and adjustment and troubleshooting procedures. Highly equipment oriented, with little mathematics.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity and electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0058

Aviation Radar Technician

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, San Diego, CA. *Version 3:* Communication-Electronics School, San Diego, CA. *Version 4:* Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 34 weeks (1198-1265 hours). *Version 2:* 26-33 weeks (910-1155 hours). *Version 3:* 28 weeks (980 hours). *Version 4:* 24 weeks (840 hours).

Exhibit Dates: *Version 1:* 1/72-Present. *Version 2:* 7/62-12/71. *Version 3:* 7/59-6/62. *Version 4:* 7/56-6/59.

Objectives: To provide senior noncommissioned officers with advanced instruction in the erection, operation, adjustment, repair, and maintenance of specialized aviation radar equipment and associated test equipment.

Instruction: Operation and troubleshooting procedures for interrogator sets, decoder groups and IFF equipment. Maintenance of computers, synthesizers, transmitters, receivers, antennas, computer correlator detectors, target position computers, IFF data processors and radar display consoles.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in communications technology (2/76). *Version 2:* In the vocational certificate category, 12 semester hours in electronics and credit in electronics laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (12/68). *Version 3:* In the vocational certificate category, 12 semester hours in electronics and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (12/68). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in electronics laboratory, and credit in electricity on the basis of institutional evaluation (12/68).

MC-1715-0059

AVIATION RADAR REPAIR (C)

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 12 weeks (443 hours). *Version 2:* 12 weeks (420–445 hours). *Version 3:* 12–17 weeks (455–607 hours).

Exhibit Dates: *Version 1:* 7/78–Present. *Version 2:* 11/73–6/78. *Version 3:* 5/64–10/73.

Objectives: To train enlisted personnel who are graduates of basic electronics and radar fundamentals courses to repair aviation radar sets and associated equipment.

Instruction: Lectures and practical exercises in operation and troubleshooting procedures for interrogator sets, decoder groups, and IFF test equipment; and maintenance of computer programmers, synthesizers, transmitters, antennas, computer-correlation detectors, target position computers, IFF data processors, and radar display consoles.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic equipment maintenance (3/79). *Version 2:* In the vocational certificate category, 4 semester hours in communication technology (2/76). *Version 3:* In the vocational certificate category, 6 semester hours in electronics and electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (4/74).

MC-1715-0061

BASIC RADAR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA; Basic Electronics School, San Diego, CA.

Length: 13–14 weeks (455–525 hours).

Exhibit Dates: 7/56–3/79.

Objectives: To train electronics technicians to test, align, troubleshoot, and maintain a basic radar set.

Instruction: Lectures and practical exercises in the testing, alignment, troubleshooting, and maintenance of a basic radar set, including basic radar theory, IFF and indicator group equipment, and alignment and troubleshooting procedures for specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in electronics (12/68).

MC-1715-0062

GROUND RADAR REPAIR

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, San Diego, CA. *Version 4:* Basic Electronics School, San Diego, CA.

Length: *Version 1:* 5 weeks (185 hours). *Version 2:* 5 weeks (200 hours). *Version 3:* 9–10 weeks (315–414 hours). *Version 4:* 5 weeks (175 hours).

Exhibit Dates: *Version 1:* 7/74–Present. *Version 2:* 1/72–6/74. *Version 3:* 7/58–12/71. *Version 4:* 7/56–6/58.

Objectives: To train enlisted personnel with electronics backgrounds to install, operate, adjust, inspect and maintain specific ground radar sets.

Instruction: *All Versions:* Lectures and practical exercises in the installation, operation, adjustment, inspection, and maintenance of specific ground radar sets, including basic theory of radar sets and auxiliary and test equipment, system circuit analysis, and operation of various subsystems in specific equipment. *Version 2:* Includes introduction to digital computer principles and circuits, number systems and symbolic notation, and analysis of a specific ballistics computer within a radar set.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in communications technology (2/76). *Version 2:* In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 2 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (4/74). *Version 4:* Insufficient data for evaluation (4/74).

MC-1715-0063

RADAR FUNDAMENTALS

Course Number: None.

Location: *Version 1:* Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA. *Version 2:* Communication-Electronics School, Twentynine Palms, CA. *Version 3:* Communication-Electronics School, San Deigo, CA. *Version 4:* Communication-Electronics School Battalion, San Diego, CA.

Length: *Version 1:* 4–8 weeks (147–292 hours). *Version 2:* 8 weeks (320 hours). *Version 3:* 6 weeks (240 hours). *Version 4:* 6–7 weeks (240–245 hours).

Exhibit Dates: *Version 1:* 7/74–3/79. *Version 2:* 1/72–6/74. *Version 3:* 11/68–12/71. *Version 4:* 7/62–10/68.

Objectives: To train enlisted personnel in the fundamental concepts of radar principles.

Instruction: *All Versions:* Lectures and practical exercises in the theory of electronics for analysis of radar, pulse circuits and components, including basic theory of power supplies, timing circuits, blocking oscillators, pulse amplifiers, receiver amplifiers, klystrons, and antenna drive systems and use of oscilloscopes, signal generators, voltmeters, and special test equipment. *Version 1:* Includes analysis of individual stages in a representative radar training system. *Version 2:* Includes control rectifier antenna drive and transistor servicing principles. Course is vacuum-tube oriented. *Version 3:* Course is vacuum-tube oriented.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in communications technology for the 4-week course designed for MOS 5931, 5933 and 5934; 4 semester hours in communications technology for the 8-week course designed for MOS 5942, 5943 and 5945 (2/76). *Version 2:* In the vocational certificate category, 3 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 2 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (4/74). *Version 4:* In the vocational certificate category, 2 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0064

ELECTRONIC TELETYPE REPAIR

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 16 weeks (640 hours).

Exhibit Dates: 11/63–12/68.

Objectives: To train enlisted personnel to maintain and repair telephone and teletype equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of telephone and teletype equipment, including theory of solid-state devices, pulse-forming and -modulation circuits, time division multiplexing, multivibrators, binary arithmetic, computer logic circuits, application of test equipment, specific equipment analysis and operation, and digital fundamentals for application to telephone or teletype systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory, 6 in teletype and telephone repair (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory, 3 in electromechanical technology (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

MC-1715-0065

CRYPTOGRAPHIC EQUIPMENT MAINTENANCE PREPARATORY

Course Number: None.

Location: Communication-Electronics School Battalion, San Diego, CA.

Length: 6 weeks (210–240 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train enlisted personnel to maintain AN/TGC-14(V) teletype equipment.

Instruction: Lectures and practical exercises in AN/TGC-14 teletypewriter operation, including basic electronics test equipment usage, circuit fundamentals, solid-state components, digital computer fundamentals, and circuit analysis; and teletypewriter repair and maintenance, including disassembly, inspection, reassembly, and testing.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electronics, 3 in electromechanical technology (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electronics, 2 in electromechanical technology (5/74).

MC-1715-0066

BASIC RADIO

Course Number: None.

Location: Basic Electronics School, San Diego, CA; Communication-Electronics School Battalion, San Diego, CA.

Length: *Version 1:* 7 weeks (245 hours). *Version 2:* 10 weeks (350 hours).

Exhibit Dates: *Version 1:* 7/58–12/68. *Version 2:* 7/56–6/58.

Objectives: To train enlisted personnel to inspect, test, and maintain basic radio equipment.

Instruction: Lectures and practical exercises in basic radio, including shop practices, radiac instruments, electronics supply, circuit analysis, antennas, frequency modulation, servicing methods, soldering techniques, types of bursts, preventive maintenance of radiac instruments, resistors and electrical circuits, series, combination and parallel circuits, magnets, inductance, frequency modulation transmitters, noise and interference in FM Tran/Rec, theory and use of TS-297 and ME-25A/U, and troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electricity and radio, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and radio (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity and radio, and credit in electrical laboratory on the basis of institutional evaluation (6/74). *Version 2:* In the vocational certificate category, 3 semester hours in electricity and radio (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity and radio on the basis of institutional evaluation (4/74).

MC-1715-0067

Operations Officer Electronic Counter-Countermeasures (ECCM)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 5/66–12/68.

Objectives: To train personnel in basic concepts of electronic countermeasures and counter-countermeasures.

Instruction: Lectures and practical exercises in electronic countermeasures and counter-countermeasures, including electronic warfare, active countermeasures, active countermeasures recognition, advanced ECM techniques and developments, ECCM transmitter techniques and devices, transmitter avoidance fixes, receiver techniques or nonsynchronous pulses, CFAR principles, transmitter fixes to increase signal-to-noise ratio and for synchronous-pulse jamming, and gain controls.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

MC-1715-0068

Special Ground Radio Repair

Course Number: None.

Location: Communications-Electronics School Battalion, San Diego, CA.

Length: 20 weeks (700 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train personnel in special ground radio repair.

Instruction: Lectures and practical exercises in special ground radio repair, including radiac instruments, test equipment and servicing methods, circuit analysis, specific radio sets, theory of frequency modulation, antenna principles, maintenance and construction of antennas, shop practices, and electronic supply and shop management.

Credit Recommendation: Insufficient data for evaluation (6/74).

MC-1715-0069

Special Anti-Air Warfare (AAW) Batteryman

Course Number: None.

Location: Air Reserve Missile Training Detachment, Twentynine Palms, CA.

Length: 7 weeks (210 hours).

Exhibit Dates: 11/66–12/68.

Objectives: To train enlisted personnel in the equipment and operation of the Hawk guided missile system.

Instruction: Lectures and practical exercises in the equipment and operation of the Hawk guided missile system, including introduction to Hawk; launcher operations; missile test shop operations and handling; loader and generator operations; pulse-acquisition radar operations; range-only radar operations; continuous wave acquisition, high-power illuminator, and continuous wave illuminator radar operations; battery control central operations; assault fire command console operations; orientation and alignment of the battery; battle plan procedures; and battalion operations.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (5/74).

MC-1715-0070

Radio Telegraph Operator

Course Number: None.

Location: Basic Electronics School, San Diego, CA; Communication-Electronics School, San Diego, CA.

Length: 18 weeks (630 hours).

Exhibit Dates: 7/56–12/72.

Objectives: To train enlisted personnel as radiotelegraph operators.

Instruction: Lectures and field exercises in the operation of and preventive maintenance on radio communications equipment. Topics include receiving, sending, typing, communication procedure and security, radio fundamentals, and map reading.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing, and credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing (3/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

MC-1715-0071

CH-46A AN/ALQ-52(V) Navigational TACAN Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–12/73.

Objectives: To train enlisted personnel to maintain, modify, service, and operate a specific navigational system.

Instruction: Lectures and practical exercises in the operation and maintenance of a TACAN navigational system. Course includes primary power distribution, block-diagram analysis, channel servo error operation, T/R RF theory of operation, video decoder, circuit analysis and theory, and troubleshooting procedures. Course is primarily directed to a specific navigation system and has limited general application.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical maintenance laboratory (6/74).

MC-1715-0072

Remote Control System Repairman

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 12 weeks (360 hours).

Exhibit Dates: 10/56–12/68.

Objectives: To retrain enlisted personnel in remote control and fire control equipment maintenance.

Instruction: Lectures and practical exercises in the repair and maintenance of remote and fire control equipment. Topics include elementary trigonometry, a brief overview of Ohm's law, troubleshooting of electrical and electronic parts with tube tester and meters, and the function of hydraulic components and synchros.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics or electricity (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics or electricity (6/74).

MC-1715-0073

Telephone Switchboard Repair

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 9–11 weeks (334–416 hours). *Version 2:* 8 weeks (280 hours).

Exhibit Dates: *Version 1:* 7/75–Present. *Version 2:* 4/73–6/75.

Objectives: To train enlisted personnel to diagnose and repair defects and perform routine maintenance on telephone subsets and switchboards.

Instruction: Lectures and practical exercises in the repair and maintenance of telephone subsets and switchboards. Course includes battery-powered subsets, sound and telephone theory, switchboard construction and operation, and basic electricity.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic electricity, 3 in introduction to telephone communications (3/79). *Version 2:* In the vocational certificate category, 6 semester hours in communications technology, 4 in electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in communications technology, 4 in electronics laboratory (7/74); in the upper-division baccalaureate category, 3 semester hours in communications technology (7/74).

MC-1715-0075

Tow Missile Maintenance

Course Number: None.

Location: Schools Division, Albany, GA.

Length: 5 weeks (196 hours).

Exhibit Dates: 3/75–Present.

Objectives: To train enlisted personnel to maintain and repair the Tow missile launcher system and ancillary equipment.

Instruction: Lectures and practical exercises in the launcher system, field test set, trainer set, and battery charger.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (6/75).

MC-1715-0076

Teletypewriter Repair
(Teletype Repair)

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 14 weeks (543 hours). *Version 2:* 11 weeks (407 hours). *Version 3:* 19 weeks (658 hours).

Exhibit Dates: *Version 1:* 10/78–Present. *Version 2:* 7/74–9/78. *Version 3:* 11/73–6/74.

Objectives: To train personnel to repair, operate, and maintain several military teletype terminals.

Instruction: *All Versions:* Lectures and practical exercises in the repair, maintenance, and operation of several teletype terminals, including coverage of basic electromechanical devices. *Version 3:* Includes basic electronics with Ohm's Law, series parallel resistances, AC and DC theory, semiconductor fundamentals, and RLC circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electromechanical maintenance and repair, 1 in electromechanical maintenance laboratory (3/79). *Version 2:* In the vocational certificate category, 8 semester hours in electromechanical technology (2/76). *Version 3:* In the vocational certificate category, 3 semester hours in basic electronics and 3 in teletype maintenance (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics (6/75).

MC-1715-0077

Tactical Data Communications Central Repairman

Course Number: None.

Location: Communication-Electronics School, Twentynine Palms, CA; Air Ground Combat Training Center, Twentynine Palms, CA.

Length: *Version 1:* 16–18 weeks (606 hours). *Version 2:* 16 weeks (580 hours).

Exhibit Dates: *Version 1:* 5/77–Present. *Version 2:* 7/74–4/77.

Objectives: To train enlisted personnel in the installation, maintenance, operation, testing and repair of specific military data communications equipment.

Instruction: Provides instruction at the repairman level on the Tactical Data Communications Central AN/TYQ-3. Includes basic single sideband theory, antenna and transmission line theory, data flow, and systems-oriented tasks. Malfunction isolation is taught at the module or card level.

Credit Recommendation: *Version 1:* systems maintenance, 2 in electronic communications maintenance (3/79). *Version 2:* In the vocational certificate category, 12 semester hours in electronics technology (2/76).

MC-1715-0078

Air Support Control Officer

Course Number: None.

Location: Air Ground Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 6–11 weeks (208–408 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train personnel as air support control officers.

Instruction: Lectures and practical exercises in radio net operator duties, plotter/status board techniques, radar operator procedures, and strike controller procedures, under simulated field conditions.

Credit Recommendation: Credit is not recommended because of the military nature of the course (3/79).

MC-1715-0079

Guided Missile Fire Control Repair

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 15 weeks (525 hours).

Exhibit Dates: 6/58–12/68.

Objectives: To train enlisted personnel to install, inspect, test, maintain, and repair missile fire control systems and associated air-search radar sets.

Instruction: Lectures and practical exercises in theory, installation, and adjustment of missiles and launchers, including power supplies, acquisition and track radar, synchronization, computer and plotting boards, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0080

Terrier Missile Launcher System Repairman

(Terrier Missile Launcher System Repair)

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 21 weeks (845–887 hours).

Exhibit Dates: 6/58–12/68.

Objectives: To train enlisted personnel to repair and maintain the Terrier missile launcher, control system, and associated ordnance equipment.

Instruction: Lectures and practical exercises in components, maintenance, and repair of the Terrier missile launcher, including mechanical and hydraulic systems, electrical operation, power units, system intergration, and adjustment and trouble analysis.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

MC-1715-0081

Mobile Data Communications Terminal Technician

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 11–14 weeks (418–532 hours).

Exhibit Dates: 7/75–Present.

Objectives: To train enlisted personnel in the operation and maintenance of specific military communication equipment.

Instruction: Provides in-depth instruction on the AN/TYC-5 mobile data communication terminal with emphasis on performance testing and troubleshooting of the complete system.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electro/mechanical technology (3/76).

MC-1715-0082

Tactical Air Operations Central Technician

(TAOC (AN/TYQ-2) Technician)

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: *Version 1:* 35 weeks (1342 hours). *Version 2:* 30 weeks (1127 hours).

Exhibit Dates: *Version 1:* 9/78–Present. *Version 2:* 7/75–8/78.

Objectives: To train enlisted personnel to install, operate, test, maintain, and repair specific military equipment.

Instruction: *Version 1:* Lectures and practical exercises covering a specific digital analog data processing and control system. Practical experience is gained by performing system maintenance test procedures and analyzing and correcting instructor-inserted equipment malfunctions. *Version 2:* Lectures and practical exercises covering a comprehensive digital and analog data processing and control system, including a study of digital computers, radar azimuth processing, detection and video signals, data link communications, voice communications, and program processing and control associated with an operational system.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in the use of electronic test equipment, 6 in electronic equipment maintenance (3/79). *Version 2:* In the vocational certificate category, 24 semester hours in electronics technology (2/76).

MC-1715-0083

High Frequency Communication Central Operator

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 4 weeks (146 hours).

Exhibit Dates: 7/75–Present.

Objectives: To qualify enlisted personnel in the operation of specific military electronic equipment.

Instruction: Provides instruction in the operation, installation, maintenance, and administration of communication equipment (AN/TSC-15).

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/79).

MC-1715-0084

RD-358 Magnetic Tape Subsystem Accelerated

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 4 weeks (133 hours).

Exhibit Dates: 7/75–3/79.

Objectives: To train enlisted personnel in the operation and maintenance of specific military communication equipment.

Instruction: Lectures and practical exercises in overall operation and microprogramming concepts; installation and operation of third generation digital tape processing equipment; corrective and preventive maintenance procedures; logic diagrams; and microprogram listings.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in electronics engineering technology (2/76).

MC-1715-0085

Mobile Data Central Technician
(Mobile Dial Central Technician)

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, Twentynine Palms, CA.

Length: 5 weeks (180 hours).

Exhibit Dates: 7/75–Present.

Objectives: To train enlisted personnel in the repair and maintenance of telephone PBX equipment.

Instruction: Lectures and practical exercises covering the installation, operation, testing, fault identification, adjustment, and repair of PBX equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephony technology (2/76).

MC-1717-0001

Operational Communication Chief

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 18 weeks (631 hours). *Version 2:* 21 weeks (735 hours). *Version 3:* 24 weeks (840 hours).

Exhibit Dates: *Version 1:* 1/72–Present. *Version 2:* 7/62–12/71. *Version 3:* 7/58–6/62.

Objectives: To train gunnery sergeants as operational communications chiefs.

Instruction: Lectures and practical exercises in communications facilities operation, electronic systems and equipment operation and characteristics, communication skills, typing, radio fundamentals, map and aerial photograph reading, cryptographic operations, electronic supply and maintenance, registered publication system, and Fleet Marine organization and personnel administration.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in typing, and credit in electronics on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (2/74). *Version 2:* In the vocational certificate category, 2 semester hours in typing, 1 in electronics (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing, and credit in electronics on the basis of institutional evaluation (2/74). *Version 3:* In the vocational certificate category, 2 semester hours in electronics (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hours as an elective in electronics for non-electrical-engineering majors (2/74); in the upper-division baccalaureate category, 1 semester hour as an elective in electronics for non-electrical-engineering majors (2/74).

MC-1717-0002

Radio Chief

Course Number: None.

Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communication-Electronics School, San Diego, CA.

Length: *Version 1:* 12 weeks (451 hours). *Version 2:* 17 weeks (540 hours). *Version 3:* 20–22 weeks (700–770 hours).

Exhibit Dates: *Version 1:* 7/75–Present. *Version 2:* 1/72–6/75. *Version 3:* 7/58–12/71.

Objectives: To train enlisted personnel as radio chiefs.

Instruction: *All Versions:* Lectures and practical exercises in the duties of radio chiefs, including map reading, radio procedures, communications equipment, electronic fundamentals, supply, and maintenance. *Version 1:* Also included is effective reading, typing, organization and management, and employment. *Version 2:* Topics include effective reading, typing, management, and organization and employment. *Version 3:* Topics include communication and transmission security; basic message front; forms, classes and types of messages; generation of address designators; use of address designators publications; generating address designators from publications; principles of preparing message texts and all forms of headings; preparation of frequency/usage reports; preparation of movement reports; numeral encryption; authentication; sending and receiving; communication procedure; communication center functions and teletype procedure; radios and associated equipment; aerial photograph reading; organization, employment and communications of the fleet Marine force; staff functions; basic wire techniques for remote installations; and visual communication.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic communication skills (3/79). *Version 2:* In the vocational certificate category, 4 semester hours in management, 3 in radio communications (electronics) (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in management, 3 in radio communications (electronics) (7/74); in the upper-division baccalaureate category, credit in management and radio communications (electronics) on the basis of institutional evaluation (7/74). *Version 3:* In the vocational certificate category, 3 semester hours in radio communications (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio communications (7/74); in the upper-division baccalaureate category, credit in radio communications on the basis of institutional evaluation (7/74).

MC-1717-0003

Ammunition Officer

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 8 weeks (253–300 hours).

Exhibit Dates: 7/57–Present.

Objectives: To train junior officers to perform the duties of a specialist in the supply, storage, and transportation of all types of ammunition other than air-droppable types.

Instruction: Lectures and practical exercises in the construction of specific types of munitions; principles of supply, renovation, storage, transportation and destruction of small arms and artillery ammunition, hand grenades, mortar, land mines, and chemical and nuclear munitions.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in industrial management (5/74).

MC-1721-0001

Optical Instrument Repairman

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 11 weeks (420 hours).

Exhibit Dates: 7/54–12/72.

Objectives: To train optical instrument and watch repairmen to repair and supervise the repair of optical instruments and watches.

Instruction: Lectures and practical exercises in the repair of optical instruments and watches, including elementary optics, and cleaning and adjustment of quadrants, telescopes, associated mounts, compasses, azimuths, binoculars, periscopes, range finders, sighting systems, stopwatches, wrist watches, and miscellaneous optical equipment.

Credit Recommendation: In the vocational certificate category, 5 semester hours in mechanical technology (optical option) or optical and instrument repair, 1 in watch repair (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical technology (optical option) or optical and instrument repair (5/74).

MC-1721-0002

Optical Instrument Repairman (Basic)

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 7–11 weeks (268–440 hours).

Exhibit Dates: 7/57–12/74.

Objectives: To train enlisted personnel to repair optical instruments.

Instruction: Lectures and practical exercises in basic optics theory; ordnance materials usage for optics; cleaning and lubricating materials in instrument and timepiece repair; levels and level vials use and care; and the cleaning and adjustment of collimating telescopes, quadrants, mounts, binoculars, wrist watches, and fire control instruments.

Credit Recommendation: In the vocational certificate category, 4 semester hours in medical technology (optical option), 1 in watch repair (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in medical technology (optical option)(5/74).

MC-1721-0003

Instrument Repair Officer

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: *Version 1:* 5 weeks (195 hours). *Version 2:* 7 weeks (300 hours).

Exhibit Dates: *Version 1:* 7/60–12/72. *Version 2:* 7/57–6/60.

Objectives: To train lieutenants and warrant officers to supervise and control the maintenance and repair of optical sighting and nonelectronic fire control material.

Instruction: Lectures and practical exercises in the supervision and control of maintenance and repair of optical sighting and nonelectronic fire control material. Course includes telescopes, periscopes, mechanical mounts, quadrants, range finders and related equipment, and auxiliary sighting and fire control equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/74).

MC-1721-0004

Optical Instrument Repairman
(Advanced)

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 4 weeks (180 hours).

Exhibit Dates: 7/58–12/72.

Objectives: To train noncommissioned officers to inspect, maintain, and repair optical sighting and nonelectrical fire control instruments and related equipment, including telescopes, periscopes, range finders, and fire control equipment.

Instruction: Lectures and practical exercises in the inspection, maintenance, and repair of optical sighting and nonelectrical fire control instruments. Course includes training in repair shop procedures and the repair of telescopes, periscopes, mechanical mounts for optical instruments, range finders and related equipment, and auxiliary sighting and fire control equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in optical repair techniques (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in optical repair techniques (8/74); in the upper-division baccalaureate category, credit in optical repair techniques on the basis of institutional evaluation (8/74).

MC-1723-0002

METALWORKERS

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 13–15 weeks (360–402 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To train enlisted personnel as metalworkers.

Instruction: *All Versions:* Lectures and practical exercises in blueprint reading and sketching, sheet metal layout, applied shop mathematics, care and operation of hand tools and measuring instruments, use of common sheet metal bench machines, oxyacetylene and electric arc welding machines and accessories, basic forging and blacksmithing processes, and identification and heat treatment of metals. *Version 1:* Instruction includes safe procedures in setting up and operating inert-gas welding equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in metalworking, welding, blacksmithing, or metals technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in metalworking, welding, blacksmithing, or metals technology (5/74); in the upper-division baccalaureate category, 2 semester hours in metalworking, welding, blacksmithing, or metals technology (5/74).

MC-1723-0003

METALSMITH FOREMAN

Course Number: None.

Location: Engineer School Battalion, Cp. Lejeune, NC.

Length: 19 weeks (538 hours).

Exhibit Dates: 10/56–12/68.

Objectives: To provide experienced machinists with advanced training in welding, blacksmithing, sheet metalworking, and metal shop supervision.

Instruction: Lectures and practical exercises in advanced welding, blacksmithing, sheet metal working and supervision of metalworking activities, including mathematics, engineering drawing, shop sketching and pattern layout, oxyacetylene and electric arc welding, and sheet metal work, safety regulations and fire bill.

Credit Recommendation: In the vocational certificate category, 16 semester hours in metalworking, metalsmithing, welding, or metals processing (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in metalworking, metalsmithing, welding, or metals processing (5/74); in the upper-division baccalaureate category, credit in metalworking and welding on the basis of institutional evaluation (12/68).

MC-1723-0004

WEAPONS REPAIR SHOP MACHINIST

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 14 weeks (420 hours).

Exhibit Dates: 6/54–12/72.

Objectives: To train shop machinists in advanced machine shop techniques, and to qualify them for higher supervisory, mechanical, or instructional assignments.

Instruction: Lectures and practical exercises in advanced machine shop techniques, including shop instruments and practices, shop mathematics, blueprint reading, machine tools, machine shop practice, heat treatment of metals, and welding.

Credit Recommendation: In the vocational certificate category, 6 semester hours in machine trades or machine technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in machine trades or machine technology (5/74); in the upper-division baccalaureate category, 2 semester hours in machine trades or machine technology (5/74).

MC-1723-0005

BASIC METALWORKER

(Basic Metal Worker)

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 6 weeks (208 hours). *Version 2:* 5 weeks (200 hours).

Exhibit Dates: *Version 1:* 1/73–Present. *Version 2:* 7/67–12/72.

Objectives: To train enlisted personnel in basic welding and sheet metalworking tasks of the fleet marine force.

Instruction: Lectures and practical exercises in basic metalworking, including welding equipment and tools; fundamentals of metalworking; theory and technique of oxyacetylene, electric arc and inert gas welding; basic sheet metalworking; safety precautions; hand tools and machinery; lines and line construction; shop sketching; punching, drilling and riveting; sheet metal layout; notching, edges and seams; and sheet metal projects.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in welding, sheet metal fabrication or metals processing (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in welding, sheet metal fabrication or metals processing (5/74). *Version 2:* In the vocational certificate category, 4 semester hours in welding, metalwork or metal processing (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in welding, metalwork or metal processing (5/74); in the upper-division baccalaureate category, 1 semester hour in welding, metalwork or metal processing (5/74).

MC-1723-0006

REPAIR SHOP MACHINIST

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 12–14 weeks (480–520 hours).

Exhibit Dates: 7/57–12/72.

Objectives: To train enlisted personnel as repair shop machinists.

Instruction: Lectures and practical exercises in applied mathematics; drawing interpretation and use of technical manuals; simple measuring instruments theory and operation; hand tools operation; lathe, shaper, and milling machine operation; heat treatment of metals; oxyacetylene, electric arc, and inert-gas welding equipment set up and operation; ordnance, automotive, and aviation equipment maintenance.

Credit Recommendation: In the vocational certificate category, 8 semester hours in machinist trades (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in machinist trades (5/74); in the upper-division baccalaureate category, 2 semester hours in machinist trades (5/74).

MC-1728-0001

MARINE SECURITY GUARD

Course Number: None.

Location: Marine Security Guard Battalion, Henderson Hall, Arlington, VA.

Length: 5 weeks (150 hours).

Exhibit Dates: 6/67–Present.

Objectives: To screen, train, and motivate selected personnel for assignment as Marine security guards with the Department of State.

Instruction: Security procedures; protection of lives and property; personal conduct living abroad; training and administration.

Credit Recommendation: In the upper-division baccalaureate category, credit in protective service on the basis of demonstrated skills and/or institutional evaluation (12/68).

MC-1728-0002

INTERROGATION OF PRISONERS OF WAR

Course Number: None.

Location: Training School, Cp. Lejeune, NC.

Length: 3–4 weeks (107 hours).

Exhibit Dates: 4/63–12/68.

Objectives: To train selected personnel in interrogation methods.

Instruction: Combat intelligence orientation; principles of interrogation; documents and reports; foreign language interrogations.

Credit Recommendation: Insufficient data for evaluation (11/73).

MC-1728-0003

ADVANCED LEGAL SERVICES

Course Number: None.

Location: Schools Battalion, Marine Corps Base, Cp. Pendleton, CA; Schools Battalion, Marine Corps Base, Cp. Lejeune, NC.

Length: 2 weeks (70 hours).

Exhibit Dates: 5/74–Present.

Objectives: To provide senior enlisted personnel with an overview of the administration of legal assistant programs.

Instruction: Lectures and practical exercises in legal administration of investigations, appelate petitions, actions and reviews, administrative discharges, reporter procedures, civil processes and law library.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in paralegal training (11/75).

MC-1728-0004

Legal Services Man/Reporter, Phase I and Phase II
(Basic Legal Administration)
(Legal Services Man)

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 5 weeks (220 hours).

Exhibit Dates: 6/74–Present.

Objectives: To provide enlisted personnel with an introduction to court martial investigation, processing, and transcription of proceedings.

Instruction: Phase I consists of lectures and practical exercises in administrative duties, including legal correspondence; utilization of appropriate reference material; maintenance of files and directives; employing proper grammar, spelling, punctuation, vocabulary, and sentence structure; and typing. Phase II includes appeals from nonjudicial punishment; preparation of charges and specifications; charge sheets; convening orders; convening and supervisory authority actions; court martial orders; investigations; courts of inquiry; administrative discharges; legal assistance; overview of civil processes; punitive articles; and forms usage and preparation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in secretarial elective (11/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in paralegal elective (11/75).

MC-1728-0005

Legal Services Man/Reporter, Phase III
(Legal Services Reporter SPCM (Closed Microphone))

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 4 weeks (133 hours).

Exhibit Dates: 6/74–Present.

Objectives: To provide enlisted personnel with introductory concepts in transcription of court martial proceedings.

Instruction: Phase III consists of lectures and practical exercises in the proper use of legal-service-reporting procedures and processes, including proper use of recording and transcripting equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in secretarial program elective (11/75).

MC-1729-0001

Basic Baker
(Basic Specialist Training Baker)
(Baker)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC; Supply School, Cp. Lejeune, NC.

Length: *Version 1:* 7–10 weeks (212–294 hours). *Version 2:* 10–12 weeks (165–375 hours).

Exhibit Dates: *Version 1:* 7/72–Present. *Version 2:* 1/59–6/72.

Objectives: To train personnel in the principles and techniques of baking with large-sized/field equipment.

Instruction: The introduction and development of basic motor skills as related to baking. Management of materials only as related to task completion and not to the management of people. Training is done in laboratory as well as stationary or mobile operational conditions under constant supervision with frequent critiqueing of performance. Basic introduction to baking techniques utilizing lecture, demonstration, and operational settings. Specific instruction in food sanitation, bakery principles and techniques and practices as applied to the quantity production of bread, sweet dough, cakes, pies, and cookies, care and operation of equipment and operational procedures specific to military conditions.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in basic bakery preparation (4/76). *Version 2:* In the vocational certificate category, 3 semester hours in baking (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in baking (12/73); in the upper-division baccalaureate category, 3 semester hours in baking (12/73).

MC-1729-0002

Advanced Stewards

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 12 weeks (378 hours).

Exhibit Dates: 1/59–12/68.

Objectives: To train stewards in advanced technical and management skills, and to provide them with refresher training in cooking and baking.

Instruction: Sound, basic instruction in all phases of food preparation and baking, with some emphasis on menu planning and meat processing; good section on supervisory training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 3 semester hours in institutional management (12/68).

MC-1729-0003

Advanced Cook

Course Number: None.

Location: Supply Schools, Cp. Lejeune, NC.

Length: 14 weeks (434 hours).

Exhibit Dates: 1/59–12/68.

Objectives: To provide cooks with the advanced technical and supervisory skills required to perform duties as chief cooks.

Instruction: Comparable to a volume food service course at the college level, with equal emphasis on food production and management of a food service operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in hotel, restaurant, and institutional management (12/73); in the lower-division baccalaureate/associate degree category, 4 semester hours in hotel, restaurant, and institutional management (12/73); in the upper-division baccalaureate category, 4 semester hours in hotel, restaurant, and institutional management (12/73).

MC-1729-0004

Food Service Staff Noncommissioned Officer (NCO) Leadership

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC.

Length: 8 weeks (256 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train advanced food service personnel in the principles and techniques of military food service installation management.

Instruction: Financial and accounting procedures, purchasing, storage, issue of food, food production and service management techniques, leadership skills in personnel management and training. Cost accounting and controls, accountability for expenditures and equipment, care and maintenance of equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in operational management (4/76).

MC-1729-0005

Food Service Noncommissioned Officer (NCO) Leadership

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC.

Length: 11 weeks (372 hours).

Exhibit Dates: 7/72–Present.

Objectives: To train food service personnel in the leadership behavior essential to effective management and training techniques for a quantity food service operation.

Instruction: Leadership training for chief cooks, mess personnel, bakers, and salad preparers at the mid-management level to include communication, problem-solving and training skills and supervisory techniques. Also includes laboratory and operational exercises under supervision in the application of techniques taught.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in quantity food production management (4/76).

MC-1729-0006

Bakery Noncommissioned Officer (NCO) Leadership

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 10–11 weeks (334 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train food service personnel in leadership behavior essential to effective management and training techniques for a large baking operation.

Instruction: Leadership training for bakery personnel at mid-management levels to include communication problem solving, and training skills and supervisory techniques. Also includes laboratory and operational exercises under supervision in the application of techniques taught using both modern stationary and mobile equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in quantity food production management (4/76).

MC-1729-0007

Advanced Special Mess Training

Course Number: None.

Location: Service Support Schools, Cp. Lejeune, NC; Supply Schools, Cp. Lejeune, NC.

Length: 8 weeks (263–271 hours).

Exhibit Dates: 8/67–12/68.

Objectives: To train personnel to plan, prepare, and serve gourmet meals.

Instruction: Menu planning; preparation and service of gourmet meals; seating arrangements and military protocol; table setting; appetizers.

Credit Recommendation: In the vocational certificate category, 2 semester hours in gourmet cookery (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in gourmet cookery (12/73); in the upper-division baccalaureate category, 2 semester hours in gourmet cookery (12/73).

MC-1729-0008

FOOD SERVICE MANAGEMENT

Course Number: None.
Location: Supply Schools, Cp. Lejeune, NC.
Length: 7 weeks (245 hours).
Exhibit Dates: 7/66–12/68.
Objectives: To train personnel in the management, organization, and administration of subsistence and food service facilities.
Instruction: Food service and subsistence management; accounting; supervision of meat processing facilities; nutrition and menu planning; field mess operations; disaster feeding.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in food service management (12/73); in the upper-division baccalaureate category, 4 semester hours in food service management (12/68).

MC-1729-0009

BASIC FOOD SERVICE

Course Number: None.
Location: Service Support School, Cp. Lejeune, NC; Supply School, Cp. Lejeune, NC.
Length: 9–11 weeks (305–365 hours).
Exhibit Dates: 5/66–Present.
Objectives: Using realistic environmental and definitive performance objectives based on task analysis, to teach the basic cook the fundamental technical behavior essential to his performance as a cook within a garrison or field messing facility.
Instruction: The introduction and development of basic motor skills as related to food preparation. Management of materials only as related to task completion and not to the management of people. Basic introduction to preparation techniques utilizing lecture, demonstration, laboratory and operational settings under constant supervision with frequent critiqueing of performance. Specific instruction in operational mathematics, breads, cookies, cakes, pies, egg protein cooking, pasta preparation, salad dressings, meat, fish, and poultry preparation, soups, sauces and gravies, vegetables, appetizers, desserts, dining room preparation (cafeteria) and operational procedures specific to military conditions.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in basic food preparation (4/76).

MC-1729-0010

ADVANCED FOOD SERVICE

Course Number: None.
Location: Service Support Schools, Cp. Lejeune, NC.
Length: 8 weeks (280 hours).
Exhibit Dates: 7/66–12/68.
Objectives: To train personnel in mess administration and management principles, and to provide them with a working knowledge of the latest techniques of food preparation and service.
Instruction: Operation of equipment; menu planning; formula conversion; portion control; cost accounting; sanitation; emphasis on meat processing, administration and management of post and field operations, and cooking techniques.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in institutional (culinary) management (12/73); in the upper-division baccalaureate category, 4 semester hours in institutional (culinary) management (12/68).

MC-1729-0011

BAKERY MANAGEMENT

Course Number: None.
Location: Supply Schools, Cp. Lejeune, NC.
Length: 4 weeks (140 hours).
Exhibit Dates: 7/66–12/68.
Objectives: To train noncommissioned officers to manage post or field bakeries.
Instruction: The course develops a knowledge of management skills with direct application to bakery operations. Included in the course are sanitation, preparation, cost accounting, and techniques used to judge the quality of food production.
Credit Recommendation: In the vocational certificate category, 2 semester hours in bakery management (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in bakery management (12/73); in the upper-division baccalaureate category, 2 semester hours in bakery management (12/68).

MC-1729-0012

ADVANCED BAKER

Course Number: None.
Location: Supply School, Cp. Lejeune, NC.
Length: 8 weeks (278 hours).
Exhibit Dates: 7/66–12/68.
Objectives: To train sergeants to manage post and field bakeries.
Instruction: The course develops a knowledge of management skills with direct application to bakery operations. Included are sanitation, food preparation, cost accounting, and subjects used to enhance the ability to judge the quality of food production.
Credit Recommendation: In the vocational certificate category, 2 semester hours in bakery organization and management (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in bakery organization and management (12/73); in the upper-division baccalaureate category, 2 semester hours in bakery organization and management (12/73).

MC-1729-0013

FOOD SERVICE

Course Number: None.
Location: Supply School, Cp. Lejeune, NC.
Length: 12 weeks (415 hours).
Exhibit Dates: 3/64–12/68.
Objectives: To provide advanced, formal training in food service operations to personnel with basic on-the-job experience in food services.
Instruction: Fundamentals of mess administration and operation; cookery; meat cutting; baking; nutrition and menu planning; military leadership emphasizing supervisory abilities.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in institutional management (12/73); in the upper-division baccalaureate category, 6 semester hours in institutional management (12/68).

MC-1729-0014

STEWARD

Course Number: None.
Location: Supply School, Cp. Lejeune, NC.
Length: 14–16 weeks (488–496 hours).
Exhibit Dates: 1/59–12/68.
Objectives: To provide basic instruction in food services, with emphasis on skills in preparing and serving food in garrison and mess.
Instruction: Basic food preparation and service; practical skill development in mess operations and dining room service for formal and informal meals.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in institutional management (12/73); in the upper-division baccalaureate category, 3 semester hours in institutional management (12/68).

MC-1729-0015

FOOD SERVICE OFFICER

Course Number: None.
Location: Supply School, Cp. Lejeune, NC.
Length: 5 weeks (192 hours).
Exhibit Dates: 3/67–12/68.
Objectives: To train food service officers in subsistence management.
Instruction: Lectures and practical exercises in the duties of food service officers and in subsistence management, including organization and administration of individual and consolidated mess systems; management of food, with emphasis on meat cutting, baking, food preparation, and serving; field mess operations, including rationing; and mobilization meals, including flight, troop train, and disaster feeding.
Credit Recommendation: In the vocational certificate category, 3 semester hours in food preparation, 3 in food service management or human relationships, 3 in food and beverage cost control (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in food preparation, 3 in food service management or human relationships, 3 in food and beverage cost control (7/74); in the upper-division baccalaureate category, 3 semester hours in food service management (12/68).

MC-1729-0016

SPECIAL MESS TRAINING LEADERSHIP

Course Number: None.
Location: Service Support Schools, Cp. Lejeune, NC.
Length: 10 weeks (344 hours).
Exhibit Dates: 4/73–Present.
Objectives: To train cooks as senior cooks.
Instruction: Lectures and practical exercises in the duties of senior cook specialists, including management and leadership, menu planning, preparation of meals, and operation of field and post mess facilities and functions.
Credit Recommendation: In the vocational certificate category, 6 semester hours in food preparation (or 3 in food preparation and 3 in baking or 3 in catering), 3 in food management, 3 in personnel management, 3 in food and beverage purchasing (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in food preparation (or 3 in food preparation and 3 in baking or 3 in catering), 3 in food management, 3 in personnel management, 3 in food and beverage purchasing (7/74); in the upper-division baccalaureate category, 3 se-

mester hours in food preparation, 3 in food management or personnel management (7/74).

MC-1729-0017

BASIC SPECIALIST TRAINING COOK
(Cook, Basic Specialist Training)

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 6 weeks (196-213 hours).

Exhibit Dates: 12/65-12/72.

Objectives: To train enlisted personnel to prepare and serve food and to operate organizational mess facilities.

Instruction: Lectures and practical exercises in the preparation and service of food and the operation of organizational mess facilities, including sanitation and storage; kitchen equipment; stock control; principles of baking; function of ingredients; mixing procedures; preparation of breads, cakes, cookies and pies; relationships of foods; use of seasonings; meat, poultry, seafood, vegetable, soup and salad cookery; and field mess operations and equipment, including maintenance and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in food preparation (or 3 in introduction to food service or baking and 3 in food preparation), 3 in food management (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in food preparation (or 3 in introduction to food service or baking and 3 in food preparation), 3 in food management (7/74); in the upper-division baccalaureate category, 3 semester hours in food preparation, 3 in food management (7/74).

MC-1729-0018

SPECIAL MESS TRAINING

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 8-10 weeks (280-318 hours).

Exhibit Dates: 7/66-6/73.

Objectives: To provide advanced food service personnel with supervised operational training designed to perfect their skills and techniques as mid-level managers.

Instruction: Lectures and practical exercises in special mess training. Course includes dining room procedure, preparation of meals, and general officers' field mess.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in food service management or to fulfill work-study requirement (4/76).

MC-1729-0019

SPECIAL MESS LEADERSHIP TRAINING

Course Number: None.

Location: Service Support School, Cp. Lejeune, NC.

Length: 8-10 weeks.

Exhibit Dates: 8/67-6/73.

Objectives: To provide advanced food service personnel with a supervised practicum designed to perfect their techniques and skills as upper-level managers.

Instruction: Rotation of training through various portions in management under supervision in operational installations. Similar to management training or work-study collegiate courses.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in food service management or to fulfill work-study requirement (4/76).

MC-1730-0001

REFRIGERATION SPECIALIST

Course Number: None.

Location: Engineer School Battalion, Cp. Lejeune, NC.

Length: 14 weeks (430 hours).

Exhibit Dates: 7/55-12/68.

Objectives: To train enlisted personnel to install, maintain, and make minor repairs on, refrigeration and accessory equipment.

Instruction: Lectures and practical exercises in the installation and repair of refrigeration equipment. Course includes the theory of refrigeration and elements of electricity and the application to actual equipment; and the use of filterings and regrigerant piping.

Credit Recommendation: In the vocational certificate category, 15 semester hours in refrigeration theory—fundamentals of electricity, refrigeration controls repair, and troubleshooting (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in refrigeration theory—fundamentals of electricity, refrigeration controls repair, and troubleshooting (5/74).

MC-1730-0002

1. BASIC REFRIGERATION MECHANIC
2. REFRIGERATION MECHANIC

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 11-12 weeks (330-334 hours).

Exhibit Dates: *Version 1:* 9/68-Present. *Version 2:* 7/58-8/68.

Objectives: To train enlisted personnel as refrigeration mechanics.

Instruction: *All Versions:* Lectures and practical exercises in refrigeration equipment maintenance and operation, including electrical theory and circuitry, principles of refrigeration, refrigeration systems and components, and assembly and troubleshooting of specific refrigeration equipment. *Version 2:* Includes mathematics; internal-combustion engine principles as applied to refrigeration, air-conditioning and ventilation systems, and decontamination materials and procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in refrigeration (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in refrigeration and/or electricity (5/74); in the upper-division baccalaureate category, 2 semester hours in refrigeration and/or electricity (5/74). *Version 2:* In the vocational certificate category, 12 semester hours in refrigeration (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in refrigeration and/or electricity (5/74); in the upper-division baccalaureate category, 3 semester hours in refrigeration and/or electricity (5/74).

MC-1730-0004

JOURNEYMAN REFRIGERATION MECHANIC

Course Number: None.

Location: Engineer School, Cp. Lejeune, NC.

Length: 12 weeks (457 hours).

Exhibit Dates: 7/70-Present.

Objectives: To train personnel to service basic refrigeration and air conditioning systems including basic temperature and electrical control systems.

Instruction: Lectures and practical exercises in basic principles of service-oriented refrigeration and air conditioning, basic cycles, mechanical system components, electrical controls and applications to small air conditioning units.

Credit Recommendation: In the vocational certificate category, 3 semester hours in refrigeration service, 3 in refrigeration service laboratory, 2 in air conditioning principles, 2 in air conditioning principles laboratory, 3 in refrigeration and air conditioning controls (6/75).

MC-2101-0001

1. MOTOR VEHICLE OPERATOR
2. MOTOR VEHICLE OPERATORS

Course Number: None.

Location: *All Versions:* Service Support School, Cp. Lejeune, NC. *Version 2:* Supply School, Cp. Pendleton, CA.

Length: *Version 1:* 7 weeks (244 hours). *Version 2:* 5-6 weeks (192-212 hours).

Exhibit Dates: *Version 1:* 1/73-12/73. *Version 2:* 8/66-12/72.

Objectives: To train basic motor transport men in the operation of tactical motor vehicles and in the duties of military drivers.

Instruction: *All Versions:* Lectures and practical exercises in the operation of tactical and military motor vehicles, including driving techniques, operator responsibilities, traffic regulations, vehicle recovery and special driving conditions, and principles of automotive vehicles. *Version 1:* Includes psychophysical evaluations and maintenance servicing.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in automotive mechanics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in automotive mechanics (4/74). *Version 2:* In the vocational certificate category, 2 semester hours in driver education programs (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in driver education programs (4/74).

MC-2204-0001

DRILL INSTRUCTOR

Course Number: None.

Location: Recruit Training Regiment, San Diego, CA; Recruit Depot, Parris Island, SC.

Length: 5-9 weeks (195-381 hours).

Exhibit Dates: 1/59-Present.

Objectives: To prepare selected noncommissioned officers for duty as drill instructors.

Instruction: Instructional methods; marksmanship; close-order drill; physical training; leadership development; rules, regulations, and procedures of recruit training.

Credit Recommendation: Credit is not recommended because of the military nature of the course (1/74).

MC-2204-0002

AMPHIBIAN VEHICLE OFFICER

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 4-5 weeks (148-203 hours).

Exhibit Dates: 7/74-Present.

Objectives: To familiarize students with amphibian tracked vehicles and provide a working knowledge of the duties and responsibilities of an amphibian tracked vehicle platoon commander.

Instruction: Topics include communications; introduction to amphibian vehicles; vehicle operation, maintenance, inspection and safety; armament stations; and field subjects and tactics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/77).

MC-2204-0003

Women Officers Training (Senior)

Course Number: None.

Location: Basic School, Quantico, VA.

Length: 5 weeks (264 hours).

Exhibit Dates: 8/55–12/68.

Objectives: To provide students with theoretical and practical military instruction necessary to prepare them for appointment as commissioned officers.

Instruction: Lectures on leadership; communications; combat intelligence; military operations; drills, inspections, and ceremonies; and physical training and conditioning.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business organization and management, 2 in leadership or group organization (12/68).

MC-2204-0004

Marine Warrant Officer, Basic

Course Number: None.

Location: The Basic School, Quantico, VA.

Length: 10–11 weeks (340–410 hours).

Exhibit Dates: 1/60–Present.

Objectives: To broaden the general military proficiency of newly appointed warrant officers.

Instruction: Lectures and practical exercises in leadership techniques, physical training, map reading, communication infantry tactics and intelligence weapons, military law, and organization and staff functioning.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced military science (12/68).

MC-2204-0005

Women Officer Training (Junior)

Course Number: None.

Location: Marine Corps Schools, Quantico, VA; Basic School, Quantico, VA.

Length: 5–6 weeks (211–264 hours).

Exhibit Dates: 6/55–12/68.

Objectives: To provide students with a basic theoretical and practical understanding of military service in the Marine Corps.

Instruction: Lectures on leadership; drill, command, inspections, and ceremonies; military operations; military customs, courtesies, traditions, and justice; communications; organization, mission and history of armed services.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in business organization and management, 2 in leadership or group organization (12/68).

MC-2204-0006

Mountain Leadership Training, Winter

Course Number: None.

Location: Cold Weather Training Center, Bridgeport, CA.

Length: 4 weeks (168 hours).

Exhibit Dates: 1/59–12/68.

Objectives: To teach selected personnel to function effectively in cold and mountainous terrains.

Instruction: Lectures and practical exercises in leadership requirements imposed by cold weather and mountainous terrain; preparation of units; features and limitations of supporting arms and services; tactics involved in security, patrols, and attacks; and survival training.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in camping and survival training (12/68).

MC-2204-0007

Mountain Leadership Training, Summer

Course Number: None.

Location: Cold Weather Training Center, Bridgeport, CA.

Length: 4 weeks (173 hours).

Exhibit Dates: 1/59–12/68.

Objectives: To train enlisted personnel to conduct small-unit operations in mountainous and cold weather environments.

Instruction: Lectures and practical exercises in leadership in cold weather operations, development of a training program, survival training, care of weapons, arctic transportation, mountain engineering, communications, and land navigation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in camping and survival training (12/68).

MC-2204-0008

Infantry Replacement and Individual Combat Training

Course Number: None.

Location: Headquarters, Marine Corps Base, Cp. Pendleton, CA.

Length: 6 weeks (169 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To provide enlisted personnel with basic infantry training.

Instruction: Lectures and practical exercises in individual combat training, including field fortifications, communications, amphibious training, weapons, and basic tactics.

Credit Recommendation: Credit is not recommended because of the military nature of the course (12/68).

MC-2204-0009

1. Warrant Officer Candidate Screening
   (Warrant Officer Candidate)
2. Warrant Officer Candidate Screening

Course Number: None.

Location: *All Versions:* Officer Candidates School, Quantico, VA. *Version 2:* Training and Test Regiment, Quantico, VA.

Length: *Version 1:* 7–10 weeks (262–301 hours). *Version 2:* 9 weeks (240–281 hours).

Exhibit Dates: *Version 1:* 6/69–Present. *Version 2:* 1/61–5/69.

Objectives: To train enlisted personnel to be warrant officers.

Instruction: Lectures and practical exercises in leadership, weapons familiarization, physical training, and small-unit tactics.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in advanced military science (12/77). *Version 2:* Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0010

Field Artillery Batteryman

Course Number: Not available.

Location: Artillery School, Cp. Pendleton, CA.

Length: 4 weeks (138 hours).

Exhibit Dates: 10/73–12/73.

Objectives: To qualify enlisted personnel to perform as field artillery batterymen.

Instruction: Lectures and practical exercises on the mission, organization, functioning and maintenance of an artillery battery and its weapons, including laying and referring, reconnaissance, selection and occupation of position, field firing exercises, and fire control equipment.

Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0011

Redeye Gunner—Platoon Training (Abbreviated Course)

Course Number: None.

Location: Air Reserve Missile Training Detachment, Twentynine Palms, CA.

Length: 3 weeks (132 hours).

Exhibit Dates: 8/66–6/70.

Objectives: To train enlisted personnel to perform as gunners on the Redeye air defense weapon system.

Instruction: Lectures and practical exercises in the operation and maintenance of the Redeye missile system, including missile firing, identification of friendly and enemy aircraft, tactical employment of weapons, and air control and tactical doctrine.

Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0012

Redeye Gunner—Platoon Training
(Redeye Gunner/Operator)

Course Number: None.

Location: Air Reserve Missile Training Detachment, Twentynine Palms, CA; Redeye Missile School, Twentynine Palms, CA.

Length: 4–9 weeks (135–321 hours).

Exhibit Dates: 8/66–3/79.

Objectives: To train enlisted personnel to perform as gunners on the Redeye air defense weapon system.

Instruction: Lectures and practical exercises in the operation and maintenance of the Redeye missile system, including missile firing, identification of friendly and enemy aircraft, tactical employment of weapons, air control and tactical doctrine, map reading, communications, compass operation, tracking and counterinsurgency, and search-and-scan procedures.

Credit Recommendation: Credit is not recommended because of the military nature of the course (12/68).

MC-2204-0013

Tactical Air Operations Central (TAOC) Weapons Controller/Operator
(Weapons Controller/Operator)

Course Number: None.

Location: Communication-Electronics School, San Diego, CA.

Length: 5–6 weeks (175–210 hours).

Exhibit Dates: 5/66–12/73.

Objectives: To train officers and enlisted personnel to operate tactical data systems.

Instruction: Lectures and practical exercises in tactical data system introduction, universal console introduction; advanced, simulated air exercises; advanced air control techniques and procedures; central operator hut operation and supervision; AN/TYA-9 target acquisition; and aircraft tracking and identification.

Credit Recommendation: Credit is not recommended because of the military nature of the course (12/68).

MC-2204-0014

SEA DUTY INDOCTRINATION
(Sea School)

Course Number: None.

Location: *Version 1:* Recruit Depot, San Diego, CA. *Version 2:* Sea School, Portsmouth, VA.

Length: 3–4 weeks (101–134 hours).

Exhibit Dates: 7/58–Present.

Objectives: To train enlisted Marines for duty with a ship's Marine detachment.

Instruction: Lectures and practical exercises on duties and shipboard life of a ship's Marine detachment, including drills, honors, and ceremonies, administrative subjects, small arms training, naval orientation, damage control and fire fighting, Marine standards, and gunnery training.

Credit Recommendation: Credit is not recommended because of the military nature of the course (6/75).

MC-2204-0015

NONCOMMISSIONED OFFICERS (NCO)
LEADERSHIP (SENIOR)

Course Number: None.

Location: Recruit Depot, Parris Island, SC.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/63–12/68.

Objectives: To train noncommissioned officers in effective leadership, tactics, and military techniques.

Instruction: Lectures in drill, command, inspections, ceremonies, weapons, map reading, battle tactics, and techniques of military instruction.

Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0016

NONCOMMISSIONED OFFICER (NCO)
LEADERSHIP (JUNIOR)

Course Number: None.

Location: Recruit Depot, Parris Island, SC.

Length: 3 weeks (128 hours).

Exhibit Dates: 1/63–12/68.

Objectives: To train noncommissioned officers in effective leadership, tactics, and military techniques.

Instruction: Lectures in drill, command, inspections, ceremonies, weapons, map reading, battle tactics, and techniques of military instruction.

Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0017

FIELD ARTILLERY OPERATIONS MAN

Course Number: None.

Location: Schools Battalion, Cp. Pendleton, CA.

Length: 9 weeks (323 hours).

Exhibit Dates: 12/72–12/74.

Objectives: To train enlisted personnel to be artillery fire direction personnel and forward observers.

Instruction: Lectures and practical exercises in artillery registration, identification and correction computation, use and maintenance of gun direction computer, and firing procedures.

Credit Recommendation: Credit is not recommended because of the military nature of the course (5/74).

MC-2204-0018

WOMAN MARINE NONCOMMISSIONED
OFFICER (NCO) LEADERSHIP

Course Number: None.

Location: Woman Officer School, Quantico, VA; Woman Marine Detachment, Quantico, VA; Woman Marine Training Detachment, Quantico, VA.

Length: 4 weeks (138–150 hours).

Exhibit Dates: 7/54–12/68.

Objectives: To provide women Marines with leadership training.

Instruction: Lectures in leadership training for women Marine noncommissioned officers. Course includes leadership, Marine Corps history, organization and management, military law, and physical training.

Credit Recommendation: In the vocational certificate category, 2 semester hours in leadership or human relations (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in leadership or human relations (6/74).

MC-2204-0019

AIRBORNE RADIO OPERATOR/LOADMASTER

Course Number: None.

Location: 2nd Marine Aircraft Wing, Cherry Point, NC.

Length: 20–22 weeks (686 hours).

Exhibit Dates: 12/72–Present.

Objectives: To train enlisted personnel as airborne radio operators/loadmasters.

Instruction: Lectures and practical exercises in the duties of an airborne radio operator/loadmaster. Topics include international Morse code, general operating procedures, airborne electronics, load weight and balance, voice operations, and ground and flight training.

Credit Recommendation: Credit is not recommended because of the military nature of the course (6/74).

MC-2204-0020

INFANTRY WEAPONS ARMORER

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 8 weeks (264 hours).

Exhibit Dates: 1/72–12/74.

Objectives: To train enlisted personnel to manage and organize armories.

Instruction: Lectures and practical exercises in the management of an infantry weapons armory. Course includes inspections, lubricants, preservatives, disassembly, assembly, and function of pistols, machine guns, submachine guns, mortars, flamethrowers, launchers, and shotguns.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in gunsmithing (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in gunsmithing (7/74).

MC-2204-0021

1. AMPHIBIOUS WARFARE
2. AMPHIBIOUS WARFARE
3. AMPHIBIOUS WARFARE
4. AMPHIBIOUS WARFARE
   (Junior Course)
5. JUNIOR COURSE
   (Junior School)

Course Number: None.

Location: Development and Education Command, Quantico, VA; Education Center, Quantico, VA.

Length: *Version 1:* 39 weeks (1138 hours). *Version 2:* 22 weeks (761 hours). *Version 3:* 22 weeks (678–687 hours). *Version 4:* 40–42 weeks (1232–1335 hours). *Version 5:* 40 weeks (1159–1279 hours).

Exhibit Dates: *Version 1:* 8/75–Present. *Version 2:* 8/71–7/75. *Version 3:* 8/67–7/71. *Version 4:* 8/62–7/67. *Version 5:* 9/58–7/62.

Objectives: To train officers in amphibious operations.

Instruction: Lectures and practical exercises in command and staff operations; tactics and techniques of amphibious operations; counterinsurgency; nuclear, biological, and chemical warfare; automatic data processing; effective communications; amphibious organization, weapons, and equipment; and management.

Credit Recommendation: *Version 1:* Pending evaluation. *Version 2:* In the upper-division baccalaureate category, 3 semester hours in general business (7/74). *Version 3:* In the upper-division baccalaureate category, 3 semester hours in business organization and management, and credit in oral and written communications on the basis of institutional evaluation (12/68). *Version 4:* In the upper-division baccalaureate category, 3 semester hours in business organization and management, 3 in French or Spanish, and credit in oral and written communication on the basis of institutional evaluation (12/68). *Version 5:* In the upper-division baccalaureate category, 3 semester hours in business organization and management, and credit in oral and written communication on the basis of institutional evaluation (12/68).

MC-2204-0022

ARTILLERY WEAPONS REPAIRMAN

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 8 weeks (210 hours).

Exhibit Dates: 1/72–12/74.

Objectives: To train enlisted personnel to repair and maintain field artillery weapons.

Instruction: Lectures and practical exercises in the maintenance and repair of field artillery weapons. Course includes artillery fundamentals, hand tool usage, and artillery maintenance.

Credit Recommendation: Credit is not recommended because of the military nature of the course (7/74).

MC-2204-0024

WOMAN OFFICER CANDIDATE

Course Number: None.

Location: *Version 1:* Officer Candidates School, Quantico, VA. *Version 2:* Woman Officer School, Quantico, VA. *Version 3:* Marine Corps School, Quantico, VA. *Version 4:* Marine Corps School, Quantico, VA.

Length: *Version 1:* 7 weeks (248 hours). *Version 2:* 7 weeks (217–243 hours). *Version 3:* 9–10 weeks (311 hours). *Version 4:* 11 weeks (350 hours).

Exhibit Dates: *Version 1:* 6/76–Present. *Version 2:* 5/68–5/76. *Version 3:* 3/63–4/68. *Version 4:* 4/62–2/63.

Objectives: To train candidates for appointment or commissioning officers.

Instruction: Lectures and practical exercises to include the history, customs, uniforms, insignias, and awards of the Marine Corps; military law; military security; the role of women in the military; leadership training; military operations and tactics; drill and command development; inspections and ceremonies; world affairs; and organizational procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in advanced military (12/77). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in principles of leadership and organization (7/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in leadership or group organization (12/68). *Version 4:* In the upper-division baccalaureate category, 2 semester hours in business organization and management, 2 in leadership or group organization (12/68).

MC-2204-0025

Amphibious Vehicle Officer Orientation

Course Number: None.
Location: Tracked Vehicle Operations School, Cp. Pendleton, CA.
Length: 4 weeks (148 hours).
Exhibit Dates: 7/58–12/68.
Objectives: To train officers to supervise amphibious vehicle operations.
Instruction: Lectures and practical exercises in the maintenance of amphibious vehicles; communications; tactics; gunnery operations; and night operations.
Credit Recommendation: Credit is not recommended because of the military nature of the course (8/74).

MC-2204-0026

Tank/Amphibian Vehicle Officer (Reserve)

Course Number: None.
Location: Schools Battalion, Cp. Pendleton, CA.
Length: 3 weeks (110 hours).
Exhibit Dates: 5/65–12/68.
Objectives: To train officers to supervise tank, armored-amphibian, and amphibian operations.
Instruction: Lectures and practical exercises in communications, driving, preventive maintenance, gunnery, tactics, field firing, and night operations with tanks, armored amphibians, and amphibians.
Credit Recommendation: Credit is not recommended because of the military nature of the course (8/74).

MC-2204-0027

Tank Officers Orientation

Course Number: None.
Location: Tracked Vehicle Operations School, Cp. Pendleton, CA.
Length: 4 weeks (152 hours).
Exhibit Dates: 7/58–12/68.
Objectives: To train officers to be tank officers.
Instruction: Lectures and practical exercises in weapons and equipment maintenance, preventive maintenance, driving, gunnery, and field operations.
Credit Recommendation: Credit is not recommended because of the military nature of the course (8/74).

MC-2204-0028

Tank/Amphibious Vehicle Officer

Course Number: None.
Location: Schools Battalion, Cp. Pendleton, CA.
Length: 9 weeks (240 hours).
Exhibit Dates: 10/64–12/68.
Objectives: To train officers in tracked-vehicle operations.
Instruction: Lectures and practical exercises in the duties of a tank/amphibious vehicle officer. Course includes night operations, maintenance procedures, tracked-vehicle power systems, basic driving, and operation of special equipment.
Credit Recommendation: Credit is not recommended because of the military nature of the course (7/74).

MC-2204-0029

Basic Shore Party Man

Course Number: None.
Location: Engineer School, Cp. Lejeune, NC.
Length: 6 weeks (191 hours).
Exhibit Dates: 1/71–Present.
Objectives: To train personnel to perform basic shore party tasks.
Instruction: Lectures and practical exercises in construction, demolitions, land mine warfare, and camouflage and field fortifications.
Credit Recommendation: Credit is not recommended because of the military nature of the course (6/75).

MC-2204-0030

Air Defense Officer
(Air Defense Control Officer, Automated System)
(Marine Tactical Data System (MTDS) Weapons Controller)

Course Number: None.
Location: Air Ground Combat Training Center, Twentynine Palms, CA; Communications-Electronics School, Twentynine Palms, CA.
Length: 8–12 weeks (283–450 hours).
Exhibit Dates: 12/71–Present.
Objectives: To provide students with knowledge of the functions and operations of a tactical air defense operations center.
Instruction: Lectures and practical exercises in tactical air operations, air intercept control, weapons system characteristics, flight rules and regulations, ground controlled intercepts, and related air traffic control procedures. Course contains 5 weeks training in automated systems.
Credit Recommendation: Credit is not recommended because of the military nature of the course (2/76).

MC-2204-0031

Air Control Electronic Operator

Course Number: None.
Location: Air Ground Combat Training Center, Twentynine Palms, CA; Air Command and Control Systems School, Twentynine Palms, CA.
Length: 4–6 weeks (132–222 hours).
Exhibit Dates: 7/74–Present.
Objectives: To train enlisted personnel as operators in tactical air operations centers.
Instruction: Lectures and practical exercises in principles of an air defense system, tactical air operations center, radar operation, operation of AN/TYQ-2 equipment, basic air traffic control and pertinent flight regulations, electronic warfare fundamentals, and target identification and intercept.
Credit Recommendation: Credit is not recommended because of the military nature of the course (3/79).

MC-2204-0032

Artillery Scout Observer

Course Number: None.
Location: Schools Battalion, Cp. Pendleton, CA.
Length: 5 weeks (185 hours).
Exhibit Dates: 5/73–12/73.
Objectives: To train enlisted personnel as artillery forward observers.
Instruction: Lectures and practical exercises in communications, organization of the artillery battery, map reading, forward observation procedures, and artillery field firing.
Credit Recommendation: Credit is not recommended because of the military nature of the course (7/74).

MC-2204-0033

Field Artillery Fire Controlman

Course Number: None.
Location: Artillery School, Cp. Pendleton, CA.
Length: 5 weeks (194 hours).
Exhibit Dates: 3/73–12/73.
Objectives: To train enlisted personnel as field artillery fire controlmen.
Instruction: Lectures and practical exercises in artillery mathematics, gunnery and survey, meteorological message, gun direction computer, and artillery field firing.
Credit Recommendation: Credit is not recommended because of the military nature of the course (7/74).

MC-2204-0035

Woman Officer Basic

Course Number: None.
Location: Marine Corps School, Quantico, VA.
Length: *Version 1:* 9 weeks (300–316 hours). *Version 2:* 6–7 weeks (223–254 hours).
Exhibit Dates: *Version 1:* 5/68–Present. *Version 2:* 8/62–4/68.
Objectives: To train newly commissioned women officers in the duties and functions of company and staff officers.
Instruction: Lectures and practical exercises in military law, leadership, management and administration, military operations, officer assignment and classification, techniques of military instruction, logistics, and communication.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, credit in advanced military science at schools which normally offer such credit (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in business organization and management and, on the basis of institutional evaluation, credit in advanced military science and in instructional methods (7/74).

MC-2204-0036

1. Nuclear and Chemical Weapons Employment
   (Weapons Employment)
2. Nuclear, Biological, and Chemical (NBC) Weapons Employment
3. Nuclear, Biological and Chemical (NBC) Weapons Employment
4. Nuclear Weapons Employment
   (Atomic Weapons Employment)

Course Number: None.
Location: Marine Corps School, Quantico, VA.
Length: *Version 1:* 5–8 weeks (146–168 hours). *Version 2:* 5–6 weeks (191–205 hours). *Version 3:* 4 weeks (162 hours). *Version 4:* 3 weeks (113–118 hours).

Exhibit Dates: *Version 1:* 12/68–Present. *Version 2:* 5/63–11/68. *Version 3:* 6/62–4/63. *Version 4:* 6/59–5/62.

Objectives: To provide knowledge and preparation necessary for officers to tactically employ nuclear and chemical weapons.

Instruction: Lectures and practical exercises in military, nuclear, and chemical weapons uses and effects, nuclear damage estimations, target analysis, chemical weapons employment, and tactical application of nuclear and chemical weapons.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

MC-2204-0037

PLATOON LEADERS CLASS (JUNIOR)

Course Number: None.

Location: Officer Candidate School, Quantico, VA; Marine Corps School, Quantico, VA.

Length: 6–7 weeks (210–283 hours).

Exhibit Dates: 6/53–4/78.

Objectives: To train officer candidates for service as Marine Corps officers.

Instruction: Lectures and practical experience in leadership, infantry weapons, small unit tactics, and other general military subjects.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced military science (7/74).

MC-2204-0038

BASIC MILITARY TRAINING
(Recruit Training)

Course Number: None.

Location: Recruit Depot, Parris Island, SC.

Length: 10–11 weeks (375 hours).

Exhibit Dates: 12/79–Present.

Objectives: To provide basic policy guidance and training in the essential subjects required of all marines and to ensure preparedness for follow-on training.

Instruction: Training includes code of conduct, military law, leadership, orientation lectures, history, customs, courtesies, uniform and clothing, mission and organization of the Marine Corps, interior guard, personal health and hygiene, swimming and first aid, close order drill, close combat, observing and reporting, individual movement, camouflage and concealment, field fortifications, helicoptor-borne operations, NBC defense, offensive and defensive combat, mines and boobytraps, physical conditioning, and parades and ceremonies.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in marksmanship, 1 in personal health/hygiene, 1 in outdoor skills practicum, 3 in personal conditioning/fitness, and 1 in first aid (9/79).

MC-2204-0039

NAVAL GUNFIRE OFFICER

Course Number: None.

Location: Educational Center, Quantico, VA.

Length: 11 weeks (309 hours).

Exhibit Dates: 6/56–12/68.

Objectives: To prepare officers in all phases of naval gunfire support, shore bombardment, and shore fire control with special emphasis on landing forces.

Instruction: Lectures and practical exercises in the characteristics of naval gunfire, fire support ships, equipment and materiel, gunnery, communications, organization, control and staff functions, operations planning, training, and familiarization with other service organizations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

MC-2204-0040

PLATOON LEADERS CLASS (SENIOR)

Course Number: None.

Location: *Version 1:* Officer Candidate School, Quantico, VA. *Version 2:* Marine Corps School, Quantico, VA.

Length: *Version 1:* 6–8 weeks (260–305 hours). *Version 2:* 6 weeks (232–264 hours).

Exhibit Dates: *Version 1:* 6/69–4/78. *Version 2:* 7/54–5/69.

Objectives: To prepare selected personnel to become commissioned officers.

Instruction: Lectures and practical exercises in drill, unit formation, command voice, inspections, parades and reviews, physical conditioning, leadership, weapons, code of conduct, small unit tactics, military law, guard duty, map reading, first aid, and indoctrination.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced military science (7/74).

MC-2204-0041

AMPHIBIOUS VEHICLE COMPANY OFFICER

Course Number: None.

Location: Tracked Vehicle Operations School, Cp. Pendleton, CA.

Length: 10 weeks (393 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train company grade officers in the tactical employment of amphibious tractor and armored amphibious units in combat.

Instruction: Lectures and practical exercises in protective maintenance of landing vehicle tank, basic radio communication, map reading, direct and indirect fire gunnery on machine gun and 105mm Howitzer, and tactical employment in night and day operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

MC-2204-0042

BASIC COURSE
(Special Basic Course)

Course Number: None.

Location: Basic School, Quantico, VA.

Length: *Version 1:* 21–30 weeks (934–1054 hours). *Version 2:* 29 weeks (1047–1062 hours). *Version 3:* 28–32 weeks (987–1169 hours).

Exhibit Dates: *Version 1:* 5/64–Present. *Version 2:* 7/62–4/64. *Version 3:* 7/57–6/62.

Objectives: To train newly commissioned officers to assume company duties.

Instruction: Lectures and practical exercises in amphibious operations, communications, field engineering, infantry weapons, leadership, map and aerial photograph reading, military law, personnel administration, and infantry tactics.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, credit in advanced military science at institutions which normally grant such credit (7/74). *Version 2:* In the upper-division baccalaureate category, credit in French or Spanish on the basis of institutional examination and credit in advanced military science at institutions which normally grant such credit (7/74). *Version 3:* In the upper-division baccalaureate category, credit in advanced military science at institutions which normally grant such credit (7/74).

MC-2204-0043

SPECIAL INDOCTRINATION

Course Number: None.

Location: Basic School, Quantico, VA.

Length: 6 weeks (219–264 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To familiarize former Naval aviation cadets with the duties of Marine Corps junior officers.

Instruction: Lectures and practical exercises in drill and command, weapons, leadership, map and aerial photograph reading, field engineering, amphibious warfare, and Marine Corps organization, mission, functions, tactics, communications, personnel administration, logistics and supply, and military law.

Credit Recommendation: In the upper-division baccalaureate category, credit in advanced military science at institutions which normally offer such credit (7/74).

MC-2204-0044

INFANTRY WEAPONS ARMORERS
(ADVANCED)

Course Number: None.

Location: Ordnance School, Quantico, VA.

Length: 6–7 weeks (180–203 hours).

Exhibit Dates: 7/58–12/68.

Objectives: To train noncommissioned officers to make and supervise extensive repairs to infantry weapons.

Instruction: Lectures and practical exercises in the use of common and special tools and gages to inspect and repair rifles, handguns, flamethrowers, mortars, shotguns, and machineguns, and blueing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in small arms repair (armorer) (5/74).

MC-2204-0045

ARTILLERY OFFICER ORIENTATION

Course Number: None.

Location: Marine Corps School, Quantico, VA.

Length: 4–5 weeks (145–194 hours).

Exhibit Dates: 10/56–12/72.

Objectives: To train personnel in the duties of the artillery unit officer and the operations of a field artillery firing battery.

Instruction: Lectures and practical exercises in the organization of the field artillery unit, communication and equipment, survey, gunnery, observed fire and fire direction procedures, equipment and materials of field artillery battery.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

MC-2204-0046

BASIC MILITARY TRAINING (WOMEN)
Recruit Training (Women)

Course Number: None.

Location: Recruit Depot, Parris Island, SC.

Length: 8 weeks (56 hours).

Exhibit Dates: 12/79–Present.

Objectives: To provide basic policy guidance and training in the essential subjects required of all Marines and to ensure preparedness for follow-on training.

Instruction: Training includes code of conduct, military law, leadership, orientation, history, customs, military courtesies, the mission and organization of the Marine Corps, uniform and clothing, interior guard, close order drill, field living, first aid, swimming, observing and reporting, individual movement, and parades and ceremonies.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in first aid, 1 in personal health/hygiene, 2 in personal conditioning/fitness (9/79).

MC-2204-0047

MORTARMAN

Course Number: None.
Location: Infantry Training School, Cp. Pendleton, CA.
Length: 5 weeks (173 hours).
Exhibit Dates: 7/74–Present.
Objectives: To provide intensive training in weapons and combat skills.
Instruction: Lectures and practical exercises in 81mm mortar; 60mm mortar; offensive, defensive, and patrolling operations; land navigation; and offensive and defensive tactics.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

MC-2204-0048

MACHINEGUNNER

Course Number: None.
Location: Infantry Training School, Cp. Pendleton, CA.
Length: 5 weeks (134–167 hours).
Exhibit Dates: 7/74–Present.
Objectives: To provide intensive training in weapons and combat skills to produce machinegunners capable of closing with and capturing or destroying the enemy.
Instruction: Course provides instruction in general military subjects pertaining to infantrymen to include tactical employment operations and field exercises in conjunction with riflemen, mortarmen and antitank assaultmen. Topics include camouflage, patrolling operations, and basic offensive and defensive tactics relating to the 7.62 M-60 machinegun.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/78).

MC-2204-0049

ANTITANK ASSAULTMAN

Course Number: None.
Location: Infantry Training School, Cp. Pendleton, CA.
Length: 5 weeks (157 hours).
Exhibit Dates: 7/74–Present.
Objectives: To provide intensive training in infantry antitank assault weapons.
Instruction: Lectures and practical exercises in general military subjects with emphasis on specialized training in weapons and tactics related to infantry antitank weapons employment on the battlefield.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

MC-2204-0050

OFFICER CANDIDATE SCHOOL
(Platoon Leaders (Combined Junior/Senior))
(Officer Candidate)

Course Number: None.
Location: Marine Corps School, Quantico, VA.
Length: 10–12 weeks (361–474 hours).
Exhibit Dates: 7/57–Present.
Objectives: To motivate and train selected personnel to become commissioned officers.
Instruction: Lectures and practical exercises in weapons information and identification; small unit tactics; Marine Corps organization, mission, and functions; uniforms and equipment; drill, inspection, and parades; leadership; physical training; land navigation; maps; and military law.
Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced military science (7/74).

MC-2204-0051

RIFLEMAN

Course Number: None.
Location: Infantry Training School, Cp. Pendleton, CA.
Length: 5 weeks (163 hours).
Exhibit Dates: 7/74–Present.
Objectives: To provide infantrymen with training in weapons and combat skills.
Instruction: Lectures and practical exercises in land navigation; supporting arms; detection of mines and booby traps; helicopter operations; tracked vehicles; technique of fire and combat firing positions; scouting and patrolling; and offensive and defensive tactics.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

MC-2204-0052

INFANTRY WEAPONS ARMORER (BASIC)

Course Number: None.
Location: Ordnance School, Quantico, VA.
Length: *Version 1:* 7 weeks (280 hours). *Version 2:* 4–5 weeks (180–203 hours).
Exhibit Dates: *Version 1:* 5/67–12/68. *Version 2:* 7/58–4/67.
Objectives: To train personnel to repair infantry weapons.
Instruction: Lectures and practical exercises in troubleshooting, disassembly, inspection, repair, reassembly and testing of rifles, pistols, grenade launchers, rocket launchers, and mortars; care and use of hand tools; and repair by component replacement.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in small arms repair (armorer) (5/75). *Version 2:* In the vocational certificate category, 1 semester hour in small arms repair (armorer) (5/75).

NV

NV-0101-0001

DISEASE VECTOR AND PEST CONTROL TECHNOLOGY

Course Number: B-00-13; B-00-14; B-000-12; B-000-13.
Location: Disease Vector Control Center, Alameda, CA; Disease Vector Control Center, Jacksonville, FL.
Length: 4 weeks (146 hours).
Exhibit Dates: 7/63–5/69.
Objectives: To provide enlisted personnel with a working knowledge of disease vector and pest control.
Instruction: Lectures and practical experience in the basic principles of disease vector and pest control, including basic entomology, operation of various types of insecticide dispersal equipment, control of arthropods and pest vertebrates, effects of weather on pest control, effects of insecticides, and sanitation.
Credit Recommendation: In the vocational certificate category, 2 semester hours in community sanitation and entomology (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in community sanitation and entomology (2/74); in the upper-division baccalaureate category, 2 semester hours in community sanitation (12/68).

NV-0202-0001

MEDICAL ILLUSTRATION TECHNICIAN, CLASS C
(Medical Illustration Technic)

Course Number: B-414-0010; B-414-10.
Location: National Naval Medical Center, Bethesda, MD.
Length: 26 weeks (888 hours).
Exhibit Dates: 1/57–12/71.
Objectives: To train personnel as medical illustrators.
Instruction: Lectures and practical exercises in medical illustration, including graphic arts, microscopic drawing, advanced anatomy, and surgical drawing.
Credit Recommendation: In the vocational certificate category, 4 semester hours in anatomy, and credit in medical illustration techniques on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in anatomy, and credit in medical illustration techniques on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 4 semester hours in anatomy, and credit in medical illustration techniques on the basis of institutional evaluation (12/68).

NV-0326-0001

NAVY ADVANCED MANAGEMENT

Course Number: P-00-3307.
Location: Defense Resources Management Center, Monterey, CA; Navy Management Systems Center, Norfolk, VA.
Length: 2 weeks (68 hours).
Exhibit Dates: 6/73–Present.
Objectives: To acquaint officers with concepts and techniques of quantitative methods of management.
Instruction: Lectures, discussions, and simulations to cover functions of management; quantitative methods; risk and uncertainty; economic principles; model building; production analysis; sampling; planning, programming, and budgeting; and management information systems.
Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in quantitative methods (6/75).

NV-0326-0002

1. NAVY SCHOOLS MANAGEMENT
2. SCHOOL ADMINISTRATION, CLASS C1, COURSE 'GOLF'
3. SCHOOL ADMINISTRATION, CLASS C1, COURSE 'GOLF'

Course Number: A-7B-0010; A-7B-0011; A-7B-0012; A-7B-010; A-7B-011; A-7B-012.
Location: *Version 1:* Air Technical Training Center, Memphis, TN; Service School Command, San Diego, CA; Service School Command, Great Lakes, IL. *Version 2:* Instructor/Leadership School, Great Lakes, IL; Instructor/Leadership School, San Diego, CA; Instructor/Leadership School, Norfolk, VA. *Version 3:*

Instructor/Leadership School, Great Lakes, IL; Instructor/Leadership School, San Diego, CA; Instructor/Leadership School, Norfolk, VA.

Length: *Version 1:* 2 weeks (80 hours). *Version 2:* 2 weeks (60 hours). *Version 3:* 4 weeks (120 hours).

Exhibit Dates: *Version 1:* 1/75–Present. *Version 2:* 7/70–12/74. *Version 3:* 11/55–6/70.

Objectives: To provide selected personnel with a working knowledge of management and communications principles necessary to manage a Navy school.

Instruction: *All Versions:* Lectures and practical experience in the principles and procedures of school management and administration. Course includes theory and techniques in management, supervision, and evaluation in school administration, including group guidance and in individual guidance and counseling. *Version 3:* Course consists of two phases; instructional procedures and administrative procedures.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in principles of management (6/75). *Version 2:* In the upper-division baccalaureate category, 1 semester hour in principles of administration (7/74). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in instructional methods (1/74).

NV-0419-0001

OFFICERS EMBARKATION (BASIC)

Course Number: None.

Location: Naval Amphibious Base, Norfolk, VA.

Length: 4 weeks (139 hours).

Exhibit Dates: 9/66–Present.

Objectives: To train military personnel to prepare and execute plans for amphibious operations.

Instruction: Lectures in the basic techniques of loading amphibious vehicles, preparation of loading plans, characteristics of amphibious ships, mechanized embarkation, data systems, automated amphibious support, and logistical considerations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water transportation (1/74).

NV-0419-0002

STAFF EMBARKATION

Course Number: None.

Location: Naval Amphibious Base, Norfolk, VA.

Length: 3 weeks (102 hours).

Exhibit Dates: 9/66–Present.

Objectives: To train military personnel to prepare and execute plans for amphibious operations.

Instruction: Lectures in the basic techniques of loading amphibious vehicles, preparation of loading plans, characteristics of amphibious ships, mechanized embarkation, data systems, automated amphibious support, and logistical considerations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in water transportation (1/74).

NV-0419-0003

ENLISTED BASIC AMPHIBIOUS EMBARKATION

(Enlisted Embarkation(Basic))

Course Number: G-551-4409.

Location: Naval Amphibious Base, Little Creek, Norfolk, VA.

Length: 4 weeks (139–140 hours).

Exhibit Dates: 9/66–Present.

Objectives: To train military personnel to prepare and execute plans for amphibious operations.

Instruction: Lectures in the basic techniques of loading amphibious vehicles, preparation of loading plans, characteristics of amphibious ships, mechanized embarkation, data systems, automated amphibious support, and logistical considerations.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water transportation (1/74).

NV-0419-0004

EMBARKATION FOR AMPHIBIOUS OPERATIONS

Course Number: G-8B-4403; H-8B-3551.

Location: Naval Amphibious Base, Norfolk, VA; Naval Amphibious Base, San Diego, CA.

Length: 4 weeks (144 hours).

Exhibit Dates: 11/69–Present.

Objectives: To train U.S. and allied military officers to operate as embarkation officers and combat cargo officers.

Instruction: Lectures in the theory of combat loading for amphibious operations, characteristics of amphibious vessels and vehicles, logistical considerations, and use of the mechanized embarkation data system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water transportation (1/74).

NV-0419-0005

AMPHIBIOUS TRANSPORT/CARGO SHIP EMBARKATION

Course Number: G-8B-4418; G-551-4418.

Location: Atlantic Naval Amphibious Base, Little Creek, VA.

Length: 2 weeks (65 hours).

Exhibit Dates: 8/72–Present.

Objectives: To train personnel in the preparation and execution of plans for the combat loading of the LPA or LKA for an amphibious operation.

Instruction: Lectures and practical exercises on embarkation considerations; ship tour; techniques of combat load-planning; preparation of loading plans; logistic considerations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in transportation or amphibious cargo handling (2/74).

NV-0419-0006

INTRODUCTION TO TRANSPORTATION MANAGEMENT

Course Number: None.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (65 hours).

Exhibit Dates: 4/71–Present.

Objectives: To provide military and civilian personnel with the basic principles of distribution and traffic management.

Instruction: Lectures in aspects of the American transportation system; the fundamentals of traffic management; military transportation management; development of transportation regulations; classification, rates, and tariffs; carrier facilities, services, and equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in transportation management (1/74).

NV-0419-0007

TRANSPORTATION AND STORAGE OF HAZARDOUS MATERIAL

Course Number: A-8C-0023.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 6/71–Present.

Objectives: To provide officers, civilians, and enlisted personnel with the knowledge and skills necessary to administer the storage and transportation of ammunition, explosives, and other hazardous material.

Instruction: Lectures in storage and transportation of hazardous materials, including military and commercial carrier operations; national, state, and local transportation regulations; traffic management and terminal service; airlift and sealift procedures; and organization and operation of a naval weapons station.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-0419-0008

1. TRANSPORTATION MANAGEMENT
2. FREIGHT TRANSPORTATION AND TRAFFIC MANAGEMENT

Course Number: A-8C-0017.

Location: Naval Supply Center, Oakland, CA.

Length: *Version 1:* 22 weeks (784 hours). *Version 2:* 22–38 weeks (733 hours).

Exhibit Dates: *Version 1:* 10/71–Present. *Version 2:* 9/55–9/71.

Objectives: To train military officers and civilian personnel to operate as transportation managers.

Instruction: Lectures and practical experience in the fundamentals of transportation management, including warehouse operations management; marine terminal management; military traffic management; materials handling; hazardous materials transportation and storage; preservation and packaging; personal property shipments; shiploading and storage; transportation rules and regulations; classification, rates, and tariffs; rail, air, motor, and pipeline transportation; quantitative aspects of distribution management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 6 semester hours in transportation management (1/74). *Version 2:* In the upper-division baccalaureate category, 10 semester hours in transportation operation and management (12/68).

NV-0419-0009

TRANSPORTATION MANAGEMENT ADVANCED

Course Number: A-8C-0012.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71–Present.

Objectives: To provide military and civilian management personnel with advanced instruction in transportation and physical distribution management.

Instruction: An advanced seminar in the concepts and problems of physical distribution management, including the fundamentals of policy and regulation, federal and military transportation policy, procedures before regulatory agencies, the economics of transportation, labor relations, containerization, materials handling and warehousing, simulation flow process charting, queuing theory, and transportation inventory modeling.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in transportation management (1/74).

NV-0419-0010

INTERMEDIATE TRANSPORTATION MANAGEMENT

Course Number: A-8C-0014.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 4/71–Present.

Objectives: To train officers to operate as transportation managers at the intermediate level.

Instruction: Lectures in the legal and economic aspects of highway transportation management; freight classification, rates, and tariffs; handling and shipping of hazardous materials; warehouse operation; carrier modes and services; military traffic management; case study preparation and presentation; current developments in motor transportation.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in transportation management (1/74).

NV-0419-0011

PERSONAL PROPERTY TRAFFIC MANAGEMENT

Course Number: A-8C-0022.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train officer, civilian, and enlisted personnel to ship household goods and other personal property.

Instruction: Lectures and practical exercises in personal property traffic management, including station orders, entitlements, entitlements under permanent and temporary change-of-station orders, management, personal property shipment methods, comprehensive personal property problems, standard military transportation and movement procedures, claims procedures and investigations, and tours.

Credit Recommendation: In the vocational certificate category, 2 semester hours in traffic management, household and personal property (6/74).

NV-0419-0012

MARINE TERMINAL MANAGEMENT

Course Number: A-8C-0011.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train selected enlisted personnel to operate and manage ocean terminals.

Instruction: Lectures and practical exercises in the operation and management of ocean terminals. Course includes marine terminal operations and management, handling of cargo through the terminal, stevedoring and stevedoring contracts, cargo space allocation, stevedoring and terminal cost estimating, and regulations.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in water transportation (7/74).

NV-0419-0013

AIR TRAFFIC MANAGEMENT

Course Number: A-8C-0024.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train officers, civilians, and senior enlisted personnel to manage air traffic operations.

Instruction: Lectures and practical exercises in air traffic management. Course includes the roles and missions of military and commercial carriers, air carrier management, operations and regulations, military air transportation, flight and terminal equipment, and effective utilization of air transportation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in air traffic management (7/74).

NV-0419-0014

INTRODUCTION TO TRAFFIC AND TERMINAL MANAGEMENT

Course Number: None.

Location: Freight Transportation School, Oakland, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 9/55–12/68.

Objectives: To train personnel in the fundamentals of transportation, traffic, and terminal management.

Instruction: Lectures and practical exercises in the fundamentals of transportation, traffic, and terminal management, including transportation logistics; economics of transportation; bills of lading; commercial and government air shipments; cargo ships; port terminal facilities; ocean shipping; duties of traffic manager; principles of shiploading; duties of marine terminal superintendent; motor carrier operations; materials-handling methods and equipment; preservation, packaging, packing, and marking of shipments; railroad facilities; mobile support; Navy carrier selection and routing policy; harbors and ports; U.S. Customs procedures; classification of rail and motor freight; state regulations; freight claims and procedures; railroad claim and damage prevention; and shipment of household effects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in traffic operations (8/74); in the upper-division baccalaureate category, 3 semester hours in traffic operations (12/68).

NV-0504-0001

INFORMATION OFFICER

Course Number: None.

Location: Journalists School, Great Lakes, IL.

Length: 4–5 weeks (120–150 hours).

Exhibit Dates: 8/54–12/62.

Objectives: To familiarize officers with the field of public relations so that they may carry out assignments of prime responsibility in the Navy's information program.

Instruction: Public relations and communication, civil and community relations, newswriting, media and media relations, case studies and practical problems, and information programs.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in journalism (6/76).

NV-0504-0002

RECRUITERS JOURNALISM, CLASS C-1

Course Number: Not available.

Location: Journalist School, Great Lakes, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/58–12/68.

Objectives: To train enlisted personnel to promote the armed services.

Instruction: Lectures and practical exercises in promotion techniques and use of media. Course includes study of community-military relations and publicity techniques (including news writing, radio and television production, camera use, film processing and picture printing).

Credit Recommendation: In the vocational certificate category, 2 semester hours in journalism (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in journalism (7/74); in the upper-division baccalaureate category, 2 semester hours in journalism (12/68).

NV-0504-0003

JOURNALISTS, CLASS A

Course Number: Not available.

Location: Journalist Class A School, Great Lakes, IL.

Length: 12 weeks (360 hours).

Exhibit Dates: 12/56–12/68.

Objectives: To train enlisted personnel as print news writers, editors, photographers and broadcast news writers.

Instruction: Lectures and practical exercises in writing, photography, and editing, including grammar, journalism fundamentals, news writing (including lead and novelty leads, story organization, captions, features, interview write-ups, advance and follow-up, editorials and copyreading), page layout and design, camera use, film developing and picture printing, radio and television (including background, production techniques, writing, and announcing), and public relations.

Credit Recommendation: In the vocational certificate category, 4 semester hours in journalism (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in journalism (7/74); in the upper-division baccalaureate category, 4 semester hours in journalism (12/68).

NV-0504-0004

JOURNALISTS, CLASS B

Course Number: Not available.

Location: Journalist Class B School, Great Lakes, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 6/61–12/68.

Objectives: To train journalists as public information assistants.

Instruction: Lectures and practical exercises in duties of public information assistants, including basic photography, writing of news and feature stories for print and electronic media, editing, radio and television production, photo story preparation, and public relations (including community relations).

Credit Recommendation: In the vocational certificate category, 2 semester hours in journalism (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in journalism (7/74); in the upper-division baccalaureate category, 3 semester hours in journalism (12/68).

NV-0602-0001

RIVERINE/COASTAL ADVISOR TRAINING

Course Number: H-00-1001; H-000-1001.

Location: Inshore Operations Training Center, Mare Island, CA.

Length: 17 weeks (881–921 hours).

Exhibit Dates: 4/70–Present.

Objectives: To train officers and enlisted personnel to advise in all phases of riverine and coastal warfare units in the Republic of Vietnam.

Instruction: Lectures and practical exercises on overseas internal defense and development, including counterinsurgency, survival, medical indoctrination, weapons, engineering, maintenance, and repair, electronic equipment, communications, riverine/coastal warfare and craft, advanced tactical training, and Vietnamese language.

Credit Recommendation: In the upper-division baccalaureate category, credit in Vietnamese language on the basis of institutional evaluation (12/68).

NV-0701-0001

Dental Technician, Maxillofacial Prosthetic

(Dental Technician, Maxillofacial Prosthetic, Class C)

Course Number: B-331-18.

Location: National Naval Medical Center, Bethesda, MD.

Length: 20–24 weeks (725–784 hours).

Exhibit Dates: 6/55–Present.

Objectives: To train dental technicians in the techniques of maxillofacial prostheses.

Instruction: Lectures and laboratories in various maxillofacial prostheses, including ocular, somato, auricular, mammary, and fixed facial prostheses.

Credit Recommendation: Insufficient data for evaluation (2/74).

NV-0701-0002

Dental Officer Indoctrination

Course Number: None.

Location: Naval Schools Command, Newport, RI.

Length: 4 weeks (133 hours).

Exhibit Dates: 6/70–Present.

Objectives: To provide dental officers with orientation training in essential naval subjects.

Instruction: Lectures and practical exercises in administrative and operational organization; fundamental skills in shipboard operations; procedures of damage control afloat; obligations and responsibilities of naval officers; and defensive driving.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-0701-0003

Dental Technician, Prosthetic, Advanced, Class B

(Dental Technician, Advanced Prosthetic, Class B)

Course Number: B-331-17.

Location: Naval Medical Center, San Diego, CA; Naval Medical Center, Bethesda, MD.

Length: 24 weeks (960 hours).

Exhibit Dates: 6/55–Present.

Objectives: To train military personnel to teach dental technology.

Instruction: Lectures in the fundamentals of teaching dental technology, including English and speech, personnel management, laboratory and office management, dental facilities administration, fixed and removable partial dentures, and casualty care.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

NV-0701-0004

Dental Technician Research Assistant, Class C

Course Number: B-331-19; B-331-20.

Location: Dental School, Bethesda, MD; Dental Research Institute, Great Lakes, IL.

Length: 52 weeks (1950 hours).

Exhibit Dates: 1/65–6/70.

Objectives: To provide instruction in the basic skills and knowledge of dental research procedures.

Instruction: Lectures and practical exercises in administration, experimental pathology, microbiology, biochemistry, microphotography, experimental surgery, and experimental animal care.

Credit Recommendation: Credit in dental laboratory technology on the basic of institutional evaluation (12/68).

NV-0701-0005

Dental Technician, General, Advanced, Class B

(Class B General Dental Technician School)

(General Dental Technician School, Class B)

(General Dental Technician Advanced, Class B)

Course Number: B-330-11.

Location: National Naval Medical Center, San Diego, CA; National Naval Medical Center, Bethesda, MD.

Length: 24 weeks (900 hours).

Exhibit Dates: 6/55–Present.

Objectives: To provide dental technicians with supplemental training in the administrative aspects of dental assisting.

Instruction: Lectures in administrative aspects of dental assisting, including communication skills, personnel management, office management, dental facilities administration, financial management, principles of accounting, and use of office machines.

Credit Recommendation: In the vocational certificate category, 2 semester hours in typing (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (2/74); in the upper-division baccalaureate category, credit in typing and accounting procedures on the basis of institutional evaluation (12/68).

NV-0701-0006

1. Dental Technician, Basic, Class A
2. Class A General Dental Technician School

(Dental Technician, General, Class A)

Course Number: *Version 1:* B-330-10. *Version 2:* None.

Location: *Version 1:* Dental Technician's School, San Diego, CA. *Version 2:* National Naval Medical Center, Bethesda, MD.

Length: *Version 1:* 12 weeks (480 hours). *Version 2:* 16 weeks (557–600 hours).

Exhibit Dates: *Version 1:* 12/67–Present. *Version 2:* 3/61–11/67.

Objectives: To train enlisted personnel to assist dental officers and to qualify for the dental technician rating.

Instruction: Lectures and practical experience in basic sciences, preventive dentistry, casualty care, dental administration, radiography, and dental assisting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in dental assisting on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in dental assisting on the basis of institutional evaluation (2/74). *Version 2:* In the vocational certificate category, 5 semester hours in dental assisting on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in dental assisting on the basis of institutional examination (2/74).

NV-0701-0007

Dental Technician, Prosthetic, Class C

(Dental Technician, Prosthetic (Class C))

(Dental Prosthetic Technician School, Class C)

Course Number: B-331-16.

Location: Naval Dental Center, San Diego, CA; Naval Dental Center, Great Lakes, IL; Naval Dental Center, Bainbridge, MD.

Length: 24 weeks (960 hours).

Exhibit Dates: 6/55–Present.

Objectives: To provide enlisted personnel with a basic knowledge of denture work.

Instruction: Lectures and practical experience in the basic principles of denture work, including applied anatomy; dental laboratory procedures; mounting and setting of teeth; construction of casts from impressions; construction of base plates, bite rims, and occlusal planes; and processing, finishing, and polishing.

Credit Recommendation: In the vocational certificate category, 4 semester hours in basic denture work on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic denture work on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in basic denture work on the basis of institutional evaluation (2/74).

NV-0701-0009

Class B General Dental Technician

(Dental Technician, Advanced General, Class B)

Course Number: None.

Location: National Medical Center, Bethesda, MD.

Length: 24 weeks (900 hours).

Exhibit Dates: 3/61–10/70.

Objectives: To train enlisted personnel to perform the duties of a dental assistant, with emphasis on office management procedures.

Instruction: Lectures and practical experience in dental office management, including typing, accounting, dental records and reports, clinical supervision, first aid for mass casualties, and administrative procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in dental assisting on the basis of institutional evaluation (2/74).

NV-0702-0001

Tissue Culture Technician, Class C

(Tissue Culture Technic)

Course Number: B-311-14.

Location: National Naval Medical Center, Bethesda, MD.

Length: 16 weeks (640 hours).

Exhibit Dates: 12/63–12/68.

Objectives: To train enlisted personnel as research assistants in tissue culture biological research.

Instruction: Lectures and practical exercises in tissue culture research assisting, including basic biology and chemistry; preparing, maintaining, and transferring cells; nutrient fluids preparation; short- and long-term tissue culture; replicate culture technique; photomicroscopy; and laboratory apparatus usage and maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in histology, 2 in medical laboratory technology, 9 in tissue culture technology, and credit in histologic technology on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in histology, 2 in medical laboratory technology, 9 in tissue culture technology, and credit in histologic technology on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 3 semester hours in histology, 2 in medical laboratory technology, 9 in tissue culture technology, and credit in histologic technology on the basis of institutional evaluation (2/74).

NV-0702-0002

Medical Technology Technician, Class C
(Medical Technology)
(Medical Technologist Technician, Class C)

Course Number: B-311-24; B-311-0025.

Location: Naval Hospital, Bethesda, MD; Naval Hospital, Great Lakes, IL.

Length: 50–52 weeks (2392 hours).

Exhibit Dates: 3/72–Present.

Objectives: To train medical technicians to perform and supervise advanced laboratory procedures in all phases of blood bank operations.

Instruction: Lectures and clinical application of diagnostic microbiology, parasitology, mycology, serology, hematology, microscopy, chemistry, quality control, blood banking, pathology techniques, automated procedures, histochemistry, urinalysis, and instrumentation, including analyzers, flame photometers, osmometers, gas chromatographs, electrophoresis apparatus, and sequential multiple analyzers.

Credit Recommendation: In the vocational certificate category, 15 semester hours in microbiology (including bacteriology, parasitology, and mycology), 10 in hematology, 5 in clinical microscopy and venapuncture, 8 in serology and blood banking, 12 in clinical chemistry, 3 in pathology and histology, and additional credit toward MLT or MT on the basis of national proficiency examination (2/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in microbiology (including bacteriology, parasitology, and mycology), 10 in hematology, 5 in clinical microscopy and venapuncture, 8 in serology and blood banking, 12 in clinical chemistry, 3 in pathology and histology, and additional credit toward MLT or MT on the basis of national proficiency examination (2/74); in the upper-division baccalaureate category, 15 semester hours in microbiology (including bacteriology, parasitology, and mycology), 10 in hematology, 5 in clinical microscopy and venapuncture, 8 in serology and blood banking, 12 in clinical chemistry, 3 in pathology and histology, and additional credit toward MLT or MT on the basis of national proficiency examination (2/74).

NV-0702-0003

1. Medical Laboratory Technician Advanced
2. Clinical Laboratory Technician, Class C

(Blood Bank and Clinical Laboratory Technic)

Course Number: B-311-0018; B-311-18; B-311-19.

Location: Health Sciences Education and Training Command, Bethesda, MD; School of Health Sciences, San Diego, CA.

Length: *Version 1:* 52 weeks (2087 hours). *Version 2:* 52–60 weeks (2625 hours).

Exhibit Dates: *Version 1:* 1/76–Present. *Version 2:* 1/54–12/76.

Objectives: To train personnel to perform advanced laboratory procedures and to assist in all phases of blood bank operations.

Instruction: *All Versions:* Lectures in bacteriology, serology and blood banking, hematology, parasitology; blood and clinical chemistry, urinalysis and venapuncture techniques. *Version 2:* Includes histopathology.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in urinalysis techniques, 3 in parasitology and 1 in laboratory organization (9/77); in the upper-division baccalaureate category, 12 semester hours in blood banking and serology, 6 in clinical chemistry, 6 in microbiology, and 6 in hematology (9/77). *Version 2:* In the vocational certificate category, 12 semester hours in bacteriology and blood chemistry, 7 in hematology, 12 in serology and blood banking, 7 in pathology and histology, 6 in clinical microscopy and venapuncture, and additional credit toward MLT or MT on the basis of national proficiency examination (2/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in bacteriology and blood chemistry, 7 in hematology, 12 in serology and blood banking, 7 in pathology and histology, 6 in clinical microscopy and venapuncture, and additional credit towards MLT or MT on the basis of national proficiency examination (2/74); in the upper-division baccalaureate category, 12 semester hours in bacteriology and blood chemistry (12/68).

NV-0702-0004

Urological Technician
(Urologic Technician), Class C
(Urologic Technic)
(Urological Technician, Class C)
(Urological Technic)

Course Number: B-300-0025; B-300-25; B-300-26; B-300-27; B-300-28.

Location: National Naval Medical Center, Bethesda, MD; Naval Hospital, Oakland, CA; School of Health Science Detachment, Portsmouth, VA; School of Health Science, San Diego, CA.

Length: 26 weeks (1040 hours).

Exhibit Dates: 1/55–Present.

Objectives: To train technicians to assist medical officers in the examination and treatment of urological patients.

Instruction: Lectures in anatomy, physiology, urological operating room techniques, cytoscopic room techniques, and urological-radiologic procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in urological anatomy and physiology, 15 in operating room techniques (urology), 15 in urological radiology, 5 in clinical laboratory (urology), 13 in clinical urology and endoscopic urology, and 3 in records management, for a total of 55 semester hours (8/77).

NV-0702-0005

Tissue Bank Technician, Class C
(Tissue Bank Technic)

Course Number: Not available.

Location: National Naval Medical Center, Bethesda, MD.

Length: *Version 1:* 26 weeks (1040 hours). *Version 2:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 12/63–12/68. *Version 2:* 1/54–11/63.

Objectives: To train enlisted personnel to be tissue bank technicians.

Instruction: Lectures on administration, anatomy, physiology, histology, bacteriology, chemistry, genetics, and grafting principles; and lectures and practical exercises in tissue bank preservation and tissue culture.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in biological science, 12 in tissue culture or histology (2/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in biological science, 12 in tissue culture or histology (2/74); in the upper-division baccalaureate category, 8 semester hours in biological science, 12 in tissue culture or histology (2/74). *Version 2:* In the vocational certificate category, 4 semester hours in biological science, 6 in tissue culture or histology (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in biological science, 6 in tissue culture or histology (2/74); in the upper-division baccalaureate category, 4 semester hours in biological science, 6 in tissue culture or histology (2/74).

NV-0702-0006

Clinical Chemistry Technician, Class C
(Clinical Chemistry Technic)

Course Number: B-311-15.

Location: National Naval Medical Center, Bethesda, MD.

Length: 12 weeks (480 hours).

Exhibit Dates: 12/63–Present.

Objectives: To train enlisted personnel to conduct quantitative and qualitative analytical tests on medical laboratory samples.

Instruction: Lectures and practical exercises in mathematics of analytical chemistry, quantitative analysis, instrumentation, organic chemistry, enzyme chemistry, steroid chemistry, toxicology, and preparation of standards and solutions.

Credit Recommendation: In the vocational certificate category, 5 semester hours in medical laboratory technology or chemistry (2/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in medical laboratory technology or chemistry (2/74); in the upper-division baccalaureate category, credit in chemistry on the basis of institutional evaluation (12/68).

NV-0702-0008

Clinical Laboratory Assistant Technic

Course Number: B-311-10; B-311-11; B-311-12; B-311-13.

Location: Naval School, San Diego, CA; Naval School, St. Albans, NY; Naval School, Portsmouth, VA; Naval School, Great Lakes, IL; Naval School, Oakland, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 7/64–Present.

Objectives: To train enlisted personnel in basic medical laboratory procedures.

Instruction: Lectures and practical exercises in basic medical laboratory procedures, including bacteriology, hematology, blood processing, serology, biochemistry, urinalysis, pathology, and parasitology.

Credit Recommendation: In the vocational certificate category, 2 semester hours in biology, 2 in chemistry, 2 in bacteriology (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in biology, 2 in chemistry, 2 in bacteriology (7/74); in the upper-division baccalaureate category, 2 semester hours in biology, 2 in chemistry, 2 in bacteriology (7/74).

NV-0702-0009

CYTOTECHNOLOGIST

Course Number: B-311-0036.

Location: National Naval Medical Center, Bethesda, MD; School of Health Sciences, San Diego, CA.

Length: 52 weeks (1938 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train individuals competent to prepare, examine, and evaluate slide presentations of cellular materials for diagnostic purposes.

Instruction: Topics cover cytology specimen preparation including techniques for collection fixation and preparation of materials; examination and evaluation of cellular materials obtained from a variety of tissue sites and diagnostic determinations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in histologic techniques (slide preparation) (8/77); in the upper-division baccalaureate category, 26 semester hours in diagnosis and evaluation of cellular material (8/77).

NV-0703-0001

1. OB/GYN NURSE PRACTITIONER
2. OB/GYN NURSE CLINICIAN

Course Number: *Version 1:* B-6F-0012. *Version 2:* B-6F-012; B-6F-12.

Location: *Version 1:* Regional Medical Center, Portsmouth, VA. *Version 2:* Selected Naval Hospitals, United States.

Length: *Version 1:* 36–39 weeks (1440–1500 hours). *Version 2:* 24–26 weeks (1040–1100 hours).

Exhibit Dates: *Version 1:* 2/75–Present. *Version 2:* 11/72–1/75.

Objectives: To train nurse corps officers to assist physicians in obstetrical and gynecological ambulatory health care.

Instruction: Lectures and clinical practice in endocrinology, obstetrics, gynecology, oncology, neonatology, embryology, pharmacology, psychosexual counseling, radiology, medical and legal aspects of obstetrics and gynecology, family planning counseling and techniques.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 1 semester hour in embryology, 2 in anatomy and physiology, 8 in obstetrics, 3 in gynecology, 1 in neonatology, 2 in oncology, and 18 in clinical experience and practice in obstetrics and gynecology (6/77). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in endocrinology, 3 in anatomy and physiology, 8 in obstetrics, 5 in gynecology, 1 in oncology, and 13 in clinical experience and practice in obstetrics and gynecology (6/77).

NV-0703-0002

OPERATING ROOM TECHNIC AND MANAGEMENT

Course Number: None.

Location: Long Beach Hospital, Long Beach, CA.

Length: 26 weeks (1040 hours).

Exhibit Dates: 8/72–Present.

Objectives: To prepare nurses as surgical assistants and operating room supervisors.

Instruction: Lectures and clinical experience in surgical environment; sterilization, disinfection, and antiseptics; management of surgical supplies, instruments, and equipment; management techniques in the operating room; and standards and controls in the operating room.

Credit Recommendation: Insufficient data for evaluation (2/74).

NV-0703-0003

NEUROPSYCHIATRY TECHNICIAN, CLASS C

(Neuropsychiatry Technic)

Course Number: B-302-45; B-302-46; B-302-47.

Location: National Naval Medical Center, Bethesda, MD; Naval Hospital, Oakland, CA; Naval Hospital, Philadelphia, PA.

Length: 16 weeks (640 hours).

Exhibit Dates: 1/57–12/68.

Objectives: To train enlisted personnel to assist in the care and treatment of neuropsychiatric patients.

Instruction: Lectures in neuropsychiatric problems; practical training in first aid, including injuries of mental patients; ward service; clinical experience; special therapies; and general psychiatric nursing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in psychology, 8 in psychiatric nursing or first aid, 2 in mental health assisting, additional credit in psychiatric nursing on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in psychology, 8 in psychiatric nursing or first aid, 2 in mental health assisting, additional credit in psychiatric nursing on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 3 semester hours in psychology, 8 in psychiatric nursing or first aid, 2 in mental health assisting, additional credit in psychiatric nursing on the basis of institutional evaluation (2/74).

NV-0703-0004

OPERATING ROOM TECHNICIAN, CLASS C

(Operating Room Technic)

Course Number: *Version 1:* B-301-0033. *Version 2:* B-301-30; B-301-33; B-301-34; B-301-36; B-301-38.

Location: National Naval Medical Center, Bethesda, MD; Naval Regional Medical Center, Oakland, CA; School of Health Sciences Detachment, Portsmouth, VA; School of Health Sciences, San Diego, CA; Naval Hospital, Chelsea, MA; Naval Hospital, Great Lakes, IL.

Length: *Version 1:* 26 weeks (1040 hours). *Version 2:* 26 weeks (960 hours).

Exhibit Dates: *Version 1:* 3/76–Present. *Version 2:* 1/54–2/76.

Objectives: To train personnel in the preparation and maintenance of operating rooms for surgery and participation in surgical procedures.

Instruction: Practical clinical experience in preparation of supplies and instruments for sterilization, operating room and splint techniques, operating room nursing principles, and supply management.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in operating room techniques and 16 in clinical application of operating room techniques (8/77). *Version 2:* In the vocational certificate category, 2 semester hours in biology, 1 in medical laboratory technology, 8 in operating room nursing and procedures on the basis of institutional evaluation 2 in clinical administration, additional credit in operating room nursing and procedures on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in biology, 1 in medical laboratory technology, 8 in operating room nursing and procedures on the basis of institutional evaluation 2 in clinical administration, and additional credit in operating room nursing and procedures on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in biology, 1 in medical laboratory technology, 8 in operating room nursing and procedures on the basis of institutional evaluation 2 in clinical administration, additional credit in operating room nursing and procedures on the basis of institutional evaluation (2/74).

NV-0703-0005

1. HOSPITAL CORPSMAN, BASIC
2. BASIC HOSPITAL CORPS SCHOOL, CLASS A
   (Hospital Corpsman, Class A)
3. BASIC HOSPITAL CORPS SCHOOL, CLASS A
4. BASIC HOSPITAL CORPS SCHOOL, CLASS A
5. BASIC HOSPITAL CORPS SCHOOL, CLASS A

Course Number: B-300-0010; B-300-10; B-300-11.

Location: Hospital Corps School, Great Lakes, IL; School of Health Sciences, San Diego, CA.

Length: *Version 1:* 10 weeks (400 hours). *Version 2:* 14 weeks (560 hours). *Version 3:* 16 weeks (640 hours). *Version 4:* 12–16 weeks (480–640 hours). *Version 5:* 20 weeks (860 hours).

Exhibit Dates: *Version 1:* 7/74–Present. *Version 2:* 3/72–6/74. *Version 3:* 3/72–6/74. *Version 4:* 1/57–2/72. *Version 5:* 1/54–12/56.

Objectives: To train enlisted personnel in the basic principles and techniques of patient care and first aid procedures.

Instruction: *All Versions:* Lectures and clinical experience in anatomy and physiology; first aid and minor surgery; hygiene and sanitation; pharmacology; toxicology; medical laboratory and patient-care techniques and principles; nuclear, biological, and chemical safety; and trauma management and treatment. *Version 1:* 10-week course does not include clinical experience.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in health and hygiene, 3 in nursing techniques, and 2 in emergency medical techniques (9/77). *Version 2:* In the vocational certificate category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 7 in nursing techniques (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 7 in nursing techniques (2/74); in the upper-division baccalaureate category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 7 in nursing techniques (2/74). *Version 3:* In the vocational certificate category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 8 in nursing techniques (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 8 in nursing techniques (2/74); in the upper-division baccalaureate category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 8 in nursing techniques (2/74). *Version 4:* In the vocational certificate category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 8 in nursing techniques (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 2 in pharmacology, 8 in nursing techniques (2/74); in the upper-division baccalaureate category, 3 semester hours in elementary anatomy and physiology, 2 in hygiene (12/68). *Version 5:* In the vocational certificate category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 8 in nursing techniques, 3 in medical laboratory technology (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 2 in health and hygiene, 8 in nursing techniques, 3 in medical laboratory technology (2/74); in the upper-division baccalaureate category, 3 semester hours in elementary anatomy and physiology, 2 in hygiene (12/68).

NV-0704-0001

1. Orthopedic Appliance Technician, Class C
   (Orthopedic Appliance Technic)
2. Orthopedic Appliance Technician, Class C
   (Orthopedic Appliance Technic)
   (Orthopedic Appliance Mechanics)

Course Number: B-304-52.

Location: Naval Hospital, Oakland, CA.

Length: *Version 1:* 26 weeks (1040 hours). *Version 2:* 52 weeks (1920 hours).

Exhibit Dates: *Version 1:* 11/67–12/68. *Version 2:* 1/55–10/67.

Objectives: To train personnel in the fitting of braces, splint supports, artificial limbs, and other orthopedic appliances.

Instruction: Lectures and practical exercises in anatomy and physiology, prosthetic training and fitting, plastic and plastic construction, above-knee construction, below-knee construction, arm, leather, foot, orthopedic brace construction, painting, and finishing.

Credit Recommendation: *All Versions:* In the vocational certificate category, 6 semester hours in orthopedic appliance technology on the basis of institutional evaluation 2 in machine tools, 2 in industrial arts (2/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in orthopedic appliance technology on the basis of institutional evaluation, 2 in machine tools, 2 in industrial arts (2/74); in the upper-division baccalaureate category, 6 semester hours in orthopedic appliance technology on the basis of institutional evaluation, 2 in machine tools, 2 in industrial arts (12/68). *Version 2:* In the vocational certificate category, 9 semester hours in orthopedic appliance technology on the basis of institutional evaluation, 3 in anatomy and physiology, 3 in machine tools, 3 in industrial arts (2/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in orthopedic appliance technology on the basis of institutional evaluation, 3 in anatomy and physiology, 3 in machine tools, 3 in industrial arts (2/74); in the upper-division baccalaureate category, 9 semester hours in orthopedic appliance technology on the basis of institutional evaluation, 3 in anatomy and physiology, 3 in machine tools, 3 in industrial arts (12/68).

NV-0704-0002

1. Physical and Occupational Therapy Technician, Phases I and II
2. Physical and Occupational Therapy Technician, Class C
   (Physical and Occupational Therapy Technic)
3. Physical Therapy Technician, Class C
   (Physical Therapy Technic)
4. Physical Therapy Technician, Class C
   (Physical Therapy Technic)

Course Number: *All Versions:* B-303-0050; B-303-0051; B-303-50. *Version 3:* B-303-51. *Version 4:* B-303-51.

Location: *Version 1:* (Phase I) U.S. Army Academy of Health Sciences, Ft. Sam Houston, TX; (Phase II) School of Health Sciences, San Diego, CA. *All Versions:* National Naval Medical Center, Bethesda, MD; School of Health Sciences, San Diego, CA.

Length: *Version 1:* (Phase I) 28 weeks (1120 hours); (Phase II) 16 weeks (640 hours). *Version 2:* 28 weeks (1120 hours). *Version 3:* 21 weeks (714 hours). *Version 4:* 26 weeks (880 hours).

Exhibit Dates: *Version 1:* 10/76–Present. *Version 2:* 3/72–9/76. *Version 3:* 11/67–2/72. *Version 4:* 1/55–10/67.

Objectives: To train enlisted personnel to perform duties as physical and occupational therapy assistants.

Instruction: *All Versions:* Lectures and clinical exercises in anatomy; physiology; physics; psychology and psychiatry; principles of rehabilitation; massage; electrotherapy; radiation therapy; and neurology, hydrotherapy and therapeutic exercise. *Version 1:* Phase I consists of didactic portions of the Army Physical Therapy Specialist and Occupational Therapy Specialist courses at Ft. Sam Houston, TX. Phase II consists of clinical experience in physical and occupational therapy. *Version 2:* Lectures and practical exercises in techniques of occupational therapy, including leather work, weaving, woodwork, design, color, hand-printing, and ceramics.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 6 semester hours in anatomy and physiology, 3 in general psychology, 13 in physical therapy principles and procedures, and 12 in occupational therapy techniques, for completion of phase I plus 8 semester hours in clinical application of physical therapy techniques and 8 in clinical application of occupational therapy techniques for completion of Phase II for a total of 50 semester hours (9/77); in the upper-division baccalaureate category, credit in anatomy, physiology, and physical and occupational therapy on the basis of institutional evaluation (9/77). *Version 2:* In the vocational certificate category, 2 semester hours in anatomy, 1 in physiology, 2 in physical science, 2 in psychology, and 4 in applied art, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy, 1 in physiology, 2 in physical science, 2 in psychology, and 4 in applied art, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 2 semester hours in anatomy, 1 in physiology, 2 in physical science, 2 in psychology, and 4 in applied art, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74). *Version 3:* In the vocational certificate category, 2 semester hours in anatomy, 1 in physiology, and 3 in physical science, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy, 1 in physiology, and 3 in physical science, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in anatomy, 1 in physiology, and 3 in physical science, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74). *Version 4:* In the vocational certificate category, 2 semester hours in anatomy, 1 in physiology, and 3 in physical science, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy, 1 in physiology, and 3 in physical science, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in anatomy, 1 in physiology, and 3 in physical science, or credit in physical therapy assisting, physical therapy, occupational therapy assisting, or occupational therapy on the basis of institutional evaluation (2/74).

NV-0704-0003

Occupational Therapy Technician, Class C
(Occupational Therapy Technic)

Course Number: B-303-48; B-303-49.

Location: *Version 1:* National Naval Medical Center, Bethesda, MD. *Version 2:* Naval Hospital, San Diego, CA.

Length: *Version 1:* 21 weeks (714 hours). *Version 2:* 26 weeks (880 hours).

Exhibit Dates: *Version 1:* 10/67–1/72. *Version 2:* 12/63–9/67.

Objectives: To train enlisted personnel to apply occupational therapy techniques in the treatment of orthopedic, neuropsychiatric, medical, and surgical patients.

Instruction: Lectures and clinical practice in physiology; physics; psychology and psychiatry; principles of occupational therapy; and craft instruction, including textile painting, leatherwork, ceramics, metalwork, weaving, woodwork, and minor crafts.

Credit Recommendation: In the vocational certificate category, 2 semester hours in anatomy, 1 in physiology, 1 in physics, 2 in psychology, 6 in applied arts and credit in occupational therapy on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy, 1 in physiology, 1 in physics, 2 in psychology, 6 in applied arts and credit in occupational therapy on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in anatomy, 1 in physiology, 1 in physics, 2 in psychology, 6 in applied arts, and credit in occupational therapy on the basis of institutional evaluation (2/74).

NV-0705-0001

Submarine Medical Officer
(Candidates)

Course Number: B-6A-22.

Location: Submarine Medical Center, Groton, CT.

Length: 19 weeks (650 hours).

Exhibit Dates: 9/72–Present.

Objectives: To provide physicians with advanced specialized training in the administration of medical services to naval submarine personnel.

Instruction: Lectures on radiological physics; personnel dosimetry, including radiation protection standards; radiobiology; safety principles of nuclear reactors; health physics; radiological health administration; lectures and practical exercises in diving medicine; scuba familiarization; submarine medicine; specialized instruction in medical testing.

Credit Recommendation: Baccalaureate credit is not recommended because of the prerequisites and the professional nature of the course (6/75).

NV-0705-0002

1. Clinical Nuclear Medicine Technician
   (Clinical Nuclear Medicine Technique)
2. Radioactive Isotope Technician, Class C
   (Radioactive Isotope Technic)

Course Number: *All Versions:* B-311-16. *Version 2:* B-311-17.

Location: *All Versions:* National Naval Medical Center, Bethesda, MD. *Version 2:* Naval Hospital, San Diego, CA.

Length: *Version 1:* 16 weeks (551 hours). *Version 2:* 24 weeks (960 hours).

Exhibit Dates: *Version 1:* 3/72–Present. *Version 2:* 1/58–2/72.

Objectives: To train personnel to operate and maintain radioisotope therapy apparatus and to assist medical officers in radioisotope therapy.

Instruction: Lectures on mathematics, general chemistry, nuclear physics, radiation safety, radiochemistry, clinical practice, and laboratory procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in algebra, 6 in physics, 6 in physiology, and 3 in hematology (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in algebra, 6 in physics, 6 in physiology, and 3 in hematology (7/74); in the upper-division baccalaureate category, 3 semester hours in algebra, 6 in physics, 6 in physiology, and 3 in hematology (7/74). *Version 2:* In the vocational certificate category, 4 semester hours in general chemistry, 3 in mathematics, 8 in radioisotope technology, 4 in physical science, and additional credit in radioisotope technology on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in general chemistry, 3 in mathematics, 8 in radioisotope technology, 4 in physical science, and additional credit in radioisotope technology on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 3 semester hours in general chemistry (12/68).

NV-0705-0003

1. X-Ray Technician
2. X-Ray Technique
   (X-Ray Technician, Class C)
   (X-Ray Technic)

Course Number: *Version 1:* B-313-0026. *Version 2:* B-313-26; B-313-27; B-313-28; B-313-29; B-313-30; B-313-31; B-313-32; B-313-33; B-313-34.

Location: *All Versions:* School of Health Sciences Detachment, Portsmouth, VA; School of Health Sciences, San Diego, CA. *Version 2:* Naval Hospital, St. Albans, NY; Naval Hospital, Bethesda, MD; Naval Hospital, Cp. Pendleton, CA; Naval Hospital, Chelsea, MA; Naval Hospital, Great Lakes, IL; Naval Hospital, Oakland, CA; Naval Hospital, Philadelphia, PA.

Length: *Version 1:* 52 weeks (1140 hours). *Version 2:* 52 weeks (1080–2087 hours).

Exhibit Dates: *Version 1:* 9/72–Present. *Version 2:* 1/54–8/72.

Objectives: To train technicians to operate medical x-ray equipment, to produce and process diagnostic radiographs, to assist in the application of radiation therapy, and to assist in fluoroscopic examinations.

Instruction: Lectures on mathematics and electricity; clinical application of radiologic and fluoroscopic techniques; photodosimetry and radiation safety; film, screen, and darkroom procedures; and radiation therapy.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in mathematics, 8 in anatomy, 8 in radiation physics and electronics, 8 in radiologic techniques, 3 in radiation safety, 3 in radiation biology, 3 in nuclear medicine technology, 3 in special procedures, 3 in darkroom techniques and 1 in ethics for a total of 43 semester hours (8/77). *Version 2:* In the vocational certificate category, 12 semester hours in radiologic technology, 2 in radiation therapy, 3 in physical science and mathematics, and additional credit in radiologic technology on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in radiologic technology, 2 in radiation therapy, 3 in physical science and mathematics, and additional credit in radiologic technology on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 12 semester hours in radiologic technology, 2 in radiation therapy, 3 in physical science and mathematics, and additional credit in radiologic technology on the basis of institutional evaluation (2/74).

NV-0705-0004

Nuclear Medicine Technician
(Nuclear Medicine Technic)

Course Number: B-322-0010.

Location: Submarine Medical Center, Groton, CT.

Length: 12 weeks (355–398 hours).

Exhibit Dates: 1/63–Present.

Objectives: To train enlisted personnel in radiation monitoring and surveys.

Instruction: Lectures and practical exercises in radiation monitoring and surveys, including radiological administration, mathematics, physics, reactor plant technology, radiobiology, and dosimetry.

Credit Recommendation: In the vocational certificate category, 6 semester hours in algebra, 6 in physics, and credit in nuclear medical technology, radiology or occupational safety and health on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in algebra, 6 in physics, and credit in nuclear medical technology, radiology, occupational safety and health on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 6 semester hours in algebra, 6 in physics, and credit in nuclear medical technology, radiology, occupational safety and health on the basis of institutional evaluation (7/74).

NV-0705-0005

Submarine Tender Radiological
Controls (Enlisted)

Course Number: F-000-034.

Location: Submarine School, Groton, CT.

Length: 5 weeks (150 hours).

Exhibit Dates: 9/72–Present.

Objectives: To train enlisted personnel in submarine tender radiological control theory.

Instruction: Lectures and practical exercises in submarine tender radiological control theory, including types of radiation; units of radiation and radioactivity; radiation detection and shielding; airborne radioactivity surveys; contamination control; decontamination; submarine tender nuclear support facilities and systems; counting statistics and applications; and radiological work practices.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in radiology (7/74); in the upper-division baccalaureate category, 2 semester hours in radiology (12/68).

NV-0706-0001

Optician (General) Technician, Class C

Course Number: B-300-20.

Location: National Naval Medical Center, Bethesda, MD.

Length: 24–40 weeks (960 hours).

Exhibit Dates: 1/63–7/70.

Objectives: To train personnel in the fitting, adjusting and dispensing of spectacles.

Instruction: Lectures and practical application of ocular anatomy and physical and geometric optics.

Credit Recommendation: In the vocational certificate category, 18 semester hours in optical technology (2/74); in the lower-division baccalaureate/associate degree category, 18 semester hours in optical technology (2/74); in the upper-division baccalaureate category, 18 semester hours in optical technology (2/74).

NV-0706-0002

1. Optician Technician, Class C
2. Optician Laboratory Technician, Class C
   (Optician Technic Laboratory)

Course Number: B-311-23.

Location: *Version 1:* Ophthalmic Support and Training Activity, Williamsburg, VA. *Version 2:* National Naval Medical Center, Bethesda, MD.

Length: *Version 1:* 26 weeks (1040 hours). *Version 2:* 7 weeks (280 hours).

Exhibit Dates: *Version 1:* 3/72–Present. *Version 2:* 1/63–2/72.

Objectives: To train enlisted personnel to fabricate lenses and to maintain and repair surfacing laboratory equipment.

Instruction: *Version 1:* Lectures and practical exercises in the principles of optics, ocular anatomy and physiological optics, spectacle fabrication and dispensing, mechanical optics, physical and geometric optics, clinical management, and repair and maintenance of laboratory equipment. *Version 2:* Lectures and practical exercises in the theory and principles of surface grinding of unifocal and multifocal lenses; laboratory procedures for unifocal and multifocal lens production; layout, blocking, marking, roughing, grinding, and polishing of spheres, spherocylinders and prisms; manufacture of safety lenses; and maintenance and repair of surfacing-laboratory equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 20 semester hours in optical technology (2/74); in the lower-division baccalaureate/associate degree category, 20 semester hours in optical technology (2/74); in the upper-division baccalaureate category, 20 semester hours in optical technology (2/74). *Version 2:* In the vocational certificate category, 6 semester hours in optical technology (2/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in optical technology (2/74); in the upper-division baccalaureate category, 6 semester hours in optical technology (2/74).

NV-0706-0003

Ocular Technician

Course Number: B-300-0020.

Location: School of Health Sciences, San Diego, CA; National Naval Medical Center, Bethesda, MD.

Length: 12 weeks (480 hours).

Exhibit Dates: 8/75–Present.

Objectives: To train personnel to assist an ophthalmologist in treating diseases of the eye and to assist the optometrist.

Instruction: Lectures and clinical education in ocular anatomy and physiology; pharmaceuticals and their administration; visual testing and visual fields; and signs, symptomology and eye pathology.

Credit Recommendation: In the vocational certificate category, 1 semester hour in mathematics (arithmetic) (8/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in ocular anatomy and physiology, 1 in pharmacy administration (eye medications), and 10 in ophthalmic assisting (8/77).

NV-0707-0001

1. Preventive Medicine Technician, Class C
   (Preventive Medicine Technic)
2. Environmental Sanitation Technic

Course Number: B-322-12.

Location: Naval Hospital, Oakland, CA.

Length: *Version 1:* 20–22 weeks (640–880 hours). *Version 2:* 20 weeks (640 hours).

Exhibit Dates: *Version 1:* 11/63–5/75. *Version 2:* 2/56–10/63.

Objectives: To train enlisted personnel to assist medical officers in epidemiological and sanitation work.

Instruction: Lectures and practical exercises in bacteriology, immunology, mathematics, statistics, epidemiology, entomology, and environmental sanitation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in speech and communications or general business, 2 in bacteriology, 2 in microbiology, 2 in statistics, 6 in environmental sanitation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in speech and communications or general business, 2 in bacteriology, 2 in microbiology, 2 in statistics, 6 in environmental sanitation (2/74); in the upper-division baccalaureate category, 2 semester hours in speech and communications or general business, 2 in bacteriology, 2 in microbiology, 2 in statistics, 6 in environmental sanitation (2/74). *Version 2:* In the vocational certificate category, 2 semester hours in speech and communications or general business, 2 in bacteriology, 2 in microbiology, 2 in statistics, 6 in environmental sanitation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in speech and communications or general business, 2 in bacteriology, 2 in microbiology, 2 in statistics, 6 in environmental sanitation (2/74); in the upper-division baccalaureate category, 3 semester hours in community sanitation, 8 in pathogenic bacteriology (12/68).

NV-0709-0001

1. Nuclear Submarine Medicine Technician, Class C
   (Nuclear Submarine Medicine Technic)
2. Submarine Medicine Technician, Class C
   (Submarine Medicine Technic)

Course Number: B-300-0012; B-300-012; B-300-12.

Location: Health Sciences Education and Training Center, New London, CT.

Length: *Version 1:* 30 weeks (900–1047 hours). *Version 2:* 20 weeks (365 hours).

Exhibit Dates: *Version 1:* 1/66–6/74. *Version 2:* 1/55–12/65.

Objectives: To train hospital corpsmen to serve on submarines independent of a medical officer.

Instruction: *Version 1:* This course is a combination of the 12-week Nuclear Medicine Technician course, the 10-week Submarine Medicine Technician course, and the 8-week Basic Enlisted Submarine course. Lectures and practical exercises in mathematics, radiological physics, photodosimetry, nuclear reactor safety, nuclear weapons safety, radiobiology, health physics, radiation administration, toxicology, first aid/minor surgery, preventive medicine, diving medicine, and medical diagnosis and treatment. *Version 2:* This course includes the 12-week Submarine Medicine Technician course and the 8-week Basic Enlisted Submarine course. Lectures and practical exercises are in medical diagnostic and treatment procedures, anatomy, physiology, pharmaceutical and laboratory procedures, minor surgery, first aid and hygiene, and sanitation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 60 semester hours in physician assisting, medical assisting, environmental health, diving medicine, diagnostics, and preventive medicine not to include general education requirements and taking into consideration the completion of mandatory prerequisites: (16 week) Hospital Corpsman, Class A School, (20 week) Hospital Corps Advanced School, and two years required experience in between. Students who do not meet those prerequisites may be granted 6 semester hours in basic mathematics and slide rule as applied to health physics and 6 semester hours in physics (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in first aid and hygiene, 3 in nursing, 3 in medical laboratory technology, 12 in health care science, and additional credit on the basis of institutional evaluation (2/74).

NV-0709-0003

1. Aerospace Medical Technician, Class C
2. Aviation Medicine Technician, Class C
   (Aviation Medicine Technic)

Course Number: B-300-17.

Location: Aerospace Medical Institute, Pensacola, FL.

Length: *Version 1:* 12–16 weeks (480–640 hours). *Version 2:* 16 weeks (640 hours).

Exhibit Dates: *Version 1:* 1/70–Present. *Version 2:* 6/63–12/69.

Objectives: To train selected hospital corpsmen in aerospace medicine.

Instruction: Lectures and practical exercises in anatomy and physiology; circulatory and respiratory systems; aviation physiology; psychology; emergency medical procedures; aviation safety and investigation; ophthalmology; and clinical laboratory practice in physical examinations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in anatomy and physiology, additional credit in first aid on the basis of institutional evaluation (9/71). *Version 2:* In the vocational certificate category, 2 semester hours in anatomy and physiology, 2 in typing, 4 in aviation medicine technology, and additional credit on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 2 in typing, 4 in aviation medicine technology, and additional credit on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in anatomy and physiology, 2 in typing, 4 in aviation medicine technology, and additional credit on the basis of institutional evaluation (2/74).

NV-0709-0004

Aerospace Physiology Technician

Course Number: B-322-11.

Location: Naval Aerospace Medical Institute, Pensacola, FL.

Length: 12–16 weeks (480-640 hours).

Exhibit Dates: 6/63–Present.

Objectives: To train enlisted personnel to assist in the indoctrination of personnel in aerospace physiology.

Instruction: Lectures on advanced anatomy of the ear, nose, throat, sinuses, and the circulatory and respiratory systems; orientation in low-pressure chambers; effects of aviation environment upon the circulatory and respiratory systems; practical exercises in ejection seat training devices; instructor training; and acceleration survival and night-vision testing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 15 semester hours in aerospace physiology or flight surgery assistance, and additional credit on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 4 semester hours in aerospace physiology or flight surgery assistance, and additional credit on the basis of institutional evaluation (2/74).

NV-0709-0005

Special Operations Technician
(Special Operations Technic)

Course Number: A-431-0021.

Location: Underwater Swimmers School, Key West, FL.

Length: 8 weeks (95 hours)

Exhibit Dates: 12/63–Present.

Objectives: To provide the hospital corpsmen with an understanding of the effects of pressure on the human body and the treatment of divers' diseases and injuries.

Instruction: Self-paced lectures and practical exercises in diving physics, underwater physiology, accident prevention, use of compression chambers, and decompression and treatment tables.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in diving medicine on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, credit in diving medicine on the basis of institutional evaluation (2/74).

NV-0709-0006

Cardiopulmonary Technician, Class C
(Cardiopulmonary Technic)

Course Number: B-300-0018; B-300-18; B-300-19.

Location: National Naval Medical Center, Bethesda, MD; School of Health Sciences, San Diego, CA.

Length: *Version 1:* 52 weeks (2036 hours). *Version 2:* 39 weeks (1560 hours). *Version 3:* 26 weeks (1039 hours).

Exhibit Dates: *Version 1:* 11/67–Present. *Version 2:* 12/63–10/67. *Version 3:* 3/60–11/63.

Objectives: To provide enlisted personnel with the knowledge and skills necessary to perform as cardiopulmonary technical assistants.

Instruction: Lectures and practical exercises in basic cardiopulmonary technical assisting, including anatomy and physiology, physics, electrocardiograph monitoring, pulmonary function procedures, cardiac catheterization procedures, surgical techniques, x-ray techniques, and operation and maintenance of cardiopulmonary machines.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in mathematics (arithmetic) and 2 in operating room techniques (8/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in pulmonary anatomy, 2 in cardiac anatomy, 3 in pulmonary physiology, 3 in cardiac physiology, 3 in biomedical electronics, 12 in cardiopulmonary instrumentation, 5 in clinical chemistry, 12 in non-invasive cardiology techniques, and 6 in invasive cardiology techniques, for a total of 47 semester hours (8/77). *Version 2:* In the vocational certificate category, 2 semester hours in anatomy or physiology, 2 in physics, 2 in mathematics, 5 in clinical chemistry, and credit in cardiopulmonary or respiratory technology on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy or physiology, 2 in physics, 2 in mathematics, 5 in clinical chemistry, and credit in cardiopulmonary or respiratory technology on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in anatomy or physiology, 2 in physics, 2 in mathematics, 5 in clinical chemistry, and credit in cardiopulmonary or respiratory technology on the basis of institutional evaluation (2/74). *Version 3:* In the vocational certificate category, 2 semester hours in mathematics, 5 in clinical chemistry, and credit in cardiopulmonary or respiratory technology on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in mathematics, 5 in clinical chemistry and credit in cardiopulmonary or respiratory technology on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in mathematics, 5 in clinical chemistry, and credit in cardiopulmonary or respiratory technology on the basis of institutional evaluation (2/74).

NV-0709-0008

1. Advanced Hospital Corpsman
   (Independent Duty Technician)
2. Medical Services Technician, Class C
   (Medical Services Technic)
3. Advanced Hospital Corps Technician, Class B
   (Hospital Corpsman, Advanced)

Course Number: *Version 1:* B-300-0016; B-300-0019. *All Versions:* B-300-15B-300-16.

Location: School of Health Sciences, San Diego, CA; Naval Hospital, Portsmouth, VA.

Length: *Version 1:* 40 weeks (1600 hours). *Version 2:* 36 weeks (1350 hours). *Version 3:* 20–26 weeks (800–1040 hours).

Exhibit Dates: *Version 1:* 4/76–Present. *Version 2:* 3/72–3/76. *Version 3:* 1/55–2/72.

Objectives: To provide medical service technicians with advanced training in the principles and techniques of medical treatment, including patient care, first aid and emergency procedures, preventive medicine, industrial safety, and administrative duties.

Instruction: Lectures and practical exercises in advanced medical and surgical conditions, diagnostics and treatment procedures, material media and toxicology, pharmacy calculations, preventive medicine and industrial safety, nuclear and biological defense, fiscal management, effective speaking, teaching methods, personnel management, and anatomy and physiology.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in anatomy and physiology, 5 in pharmacology and toxicology, 3 in laboratory techniques, 3 in food and water sanitation, 2 in environmental sanitation, 3 in introduction to patient care, 16 in manifestation of diseases, 10 in clinical application, and 3 in health systems administration, for a total of 48 semester hours (8/77). *Version 2:* In the vocational certificate category, 2 semester hours in anatomy and physiology, 2 in first aid, 3 in pharmacology, 1 in clinical laboratory, 7 in business administration, 3 in English, 2 in psychology, and additional credit in nursing or physician assisting on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in anatomy and physiology, 2 in first aid, 3 in pharmacology, 1 in clinical laboratory, 7 in business administration, 3 in English, 2 in psychology, and additional credit in nursing or physician assisting on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 2 semester hours in anatomy and physiology, 2 in first aid, 3 in pharmacology, 1 in clinical laboratory, 7 in business administration, 3 in English, 2 in psychology, and additional credit in nursing or physician assisting on the basis of institutional evaluation (2/74). *Version 3:* In the vocational certificate category, 2 semester hours in hygiene, sanitation, and first aid, 2 in anatomy and physiology, 5 in nursing, 2 in pharmacology, and 2 in medical laboratory technology (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in hygiene, sanitation, and first aid, 2 in anatomy and physiology, 5 in nursing, 2 in pharmacology, and 2 in medical laboratory technology (2/74); in the upper-division baccalaureate category, 4 semester hours in hygiene, sanitation, and first aid, and 2 in anatomy and physiology (2/68).

NV-0709-0009

1. Otolaryngology Technician
2. Eye, Ear, Nose and Throat Technician, Class C

Course Number: *Version 1:* B-300-0024. *Version 2:* B-300-21; B-300-24; B-300-22; B-300-23.

Location: *All Versions:* National Naval Medical Center, Bethesda, MD; School of Health Sciences, San Diego, CA. *Version 2:* Naval Hospital, Oakland, CA; Naval Hospital, Philadelphia, PA.

Length: *Version 1:* 16 weeks (587 hours). *Version 2:* 26 weeks (1040 hours).

Exhibit Dates: *Version 1:* 5/74–Present. *Version 2:* 12/60–4/74.

Objectives: To train personnel to assist medical officers in the care and treatment of patients for ear, nose, and throat conditions.

Instruction: *All Versions:* Lectures on the medical and surgical conditions of ear, nose and throat; audiometry; emergencies; nursing care; and operating room procedures. *Version 2:* Topics also include care and conditions of the eye.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in otolaryngology operating room techniques (8/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in otolaryngology anatomy, 1 in otolaryngology physiology, 9 in audiology and audiometry, and 6 in diagnostic and therapeutic techniques (8/77). *Version 2:* In the vocational certificate category, 12 semester hours in health care technology, 3 in nursing, 3 in anatomy and physiology, and additional credit in health care technology on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in health care technology, 3 in nursing, 3 in anatomy and physiology, and additional credit in health care technology on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 12 semester hours in health care technology, 3 in nursing, 3 in anatomy and physiology, and additional credit in health care technology on the basis of institutional evaluation (2/74).

NV-0709-0010

1. Electrocardiography Technician, Class C
   (Electrocardiography Technique)
2. Electrocardiography and Basal Metabolism Technician, Class C
   (Electrocardiography and Basal Metabolism Technic)

Course Number: B-311-20; B-311-21; B-311-22.

Location: Naval Hospitals, Bethesda, MD; Naval Hospitals, Portsmouth, VA; Naval Hospitals, San Diego, CA.

Length: *Version 1:* 8 weeks (320 hours). *Version 2:* 16 weeks (640 hours).

Exhibit Dates: *Version 1:* 3/72–Present. *Version 2:* 9/55–2/72.

Objectives: To train enlisted personnel to assist medical officers in electrocardiograph and basal metabolism examinations.

Instruction: Lectures on physiology of circulation, techniques of electrocardiography, principles of metabolism and clinical application of tests, and basal metabolism machines.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electrocardiographic technology, additional credit on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electrocardiographic technology, additional credit on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 6 semester hours in electrocardiographic technology, additional credit on the basis of institutional evaluation (2/74). *Version 2:* In the vocational certificate category, 12 semester hours in anatomy and physiology, or electrocardiographic and respiratory technology, additional credit on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in anatomy and physiology, or electrocardiographic and respiratory technology, and additional credit on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 12 semester hours in anatomy and physiology, or electrocardiographic and respiratory technology, and additional credit on the basis of institutional evaluation (2/74).

NV-0709-0011

Electroencephalography Technician, Class C

(Electroencephalography Technic)

Course Number: *All Versions:* B-302-40; B-302-43. *Version 2:* B-302-41; B-302-42; B-302-44.

Location: *Version 1:* National Naval Medical Center, Bethesda, MD. *Version 2:* Naval Hospital, San Diego, CA; Naval Hospital, St. Albans, NY; Naval Hospital, Bethesda, MD; Naval Hospital, Chelsea, MA; Naval Hospital, Oakland, CA.

Length: 16 weeks (640 hours).

Exhibit Dates: *Version 1:* 3/72–Present. *Version 2:* 1/55–2/72.

Objectives: To train personnel in electroencephalographic technology.

Instruction: Lectures and clinical application of patient-interviewing and -handling approaches, structure and function of nervous system, clinical neurology, psychiatry and medicine, neurosurgery, basic electricity and electronics, EEG instrumentation, and clinical electroencephalography.

Credit Recommendation: Insufficient data for evaluation (2/74).

NV-0709-0013

Dermatology Technician, Class C

(Dermatology Technic)

Course Number: B-300-29.

Location: Naval Hospital, Philadelphia, PA.

Length: 16–20 weeks (640 hours).

Exhibit Dates: 12/57–Present.

Objectives: To train enlisted personnel to assist medical officers in the care of patients with skin disorders.

Instruction: Lectures and laboratories in dermatology assisting, including basic laboratory techniques; basic bacteriology, serology, hematology, pathology, mycology, and parasitology; common dermatoses diagnosis; medical records and reports; operating room techniques; and special dermatologic treatment procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in epidemiology, 2 in medical laboratory technology, 12 in dermatology technology on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in epidemiology, 2 in medical laboratory technology, 12 in dermatology technology on the basis of institutional evaluation (2/74); in the upper-division baccalaureate category, 4 semester hours in epidemiology, 2 in medical laboratory technology, 12 in dermatology technology on the basis of institutional evaluation (2/74).

NV-0709-0015

Field Medical Service Technician

(Field Medical Service Officer)

Course Number: B-300-13; B-300-14.

Location: Field Medical Service School, Cp. Lejeune, NC; Field Medical Service School, Cp. Pendleton, CA.

Length: 3–7 weeks (120–280 hours).

Exhibit Dates: 1/55–Present.

Objectives: To train medical personnel in combat survival and field medical and dental practices.

Instruction: Lectures and practical exercises in combat survival and field medical and dental practices. Course includes physical conditioning, the corpsman in the field, field first aid procedures, medical supply in the field, and preventive maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in first aid (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in first aid (7/74); in the upper-division baccalaureate category, 2 semester hours in first aid (7/74).

NV-0799-0001

Naval School of Hospital Administration

Course Number: None.

Location: National Naval Medical Center, Bethesda, MD.

Length: 32–40 weeks (940–1337 hours).

Exhibit Dates: 4/57–12/68.

Objectives: To provide advanced instruction in the theory and practice of hospital administration for Medical Service Corps officers.

Instruction: Instruction includes accounting, business mathematics, English, fundamentals of instruction, office management, speech, financial management, food service management, law, maintenance management, personnel management, principles of organization, records management, security management, special services management, and supply management.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in general business (6/75); in the upper-division baccalaureate category, 11 semester hours in general business (6/75).

NV-0799-0002

Navy Alcohol Safety Action Program (NASAP)

Course Number: None.

Location: NASAP Detachment, Pensacola, FL; NASAP Detachment, Norfolk, VA; NASAP Detachment, San Diego, CA; NASAP Detachment, Jacksonville, FL; NASAP Satellite, Mayport, FL; NASAP Satellite, Cecil Field, FL; NASAP Detachment, Groton, CT; NASAP Detachment, Washington, DC; NASAP Satellite, Patuxent River, MD; NASAP Satellite, Quantico, VA; NASAP Detachment, Seattle, WA; NASAP Satellite, Bremerton, WA; NASAP Satellite, Whidbey Island, WA; NASAP Detachment, Pearl Harbor, HI; NASAP Satellite, Barbers Pt., HI; NASAP Satellite, Kaneohe, HI; NASAP Detachment, Charleston, SC; NASAP Detachment, Alameda, CA; NASAP Detachment, Orlando, FL; NASAP Detachment, Cp. Pendleton, CA; NASAP Detachment, Subic Bay, Philippines; NASAP Detachment, Rota, Spain; NASAP Command Sponsored Office, U.S.S. Saratoga; NASAP Command Sponsored Office, U.S.S. Howard Gilmore; NASAP Command Sponsored Office, Holy Loch, Scotland; NASAP Command Sponsored Office, U.S.S. Forrestal.

Length: 6 weeks (36 hours).

Exhibit Dates: 9/74–Present.

Objectives: To provide instruction on alcoholism, including early identification techniques and preventive alternatives.

Instruction: Through group discussions, lectures, role playing, and media presentations, the following primary topics are covered: an introduction to the severity of alcohol problems with particular emphasis on the drinking driver; a review of Navy regulations on the subject; medical aspects of alcohol and its physical and mental effects; legal implications of driving while intoxicated; symptoms and phases of alcohol use and abuse, attitudes and values related to both alcohol and a drinking problem; support available from other organizations and agencies; the effects of alcohol abuse on family members and friends; and the exploration of the supervisor's job in supporting the Navy Alcohol Prevention Program.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in alcohol abuse studies (10/78).

NV-0799-0003

Pharmacy Technician, Class C

(Pharmacy Technic)

Course Number: *Version 1:* B-312-0025. *Version 2:* B-312-24; B-312-25. *Version 3:* B-312-24; B-312-25.

Location: School of Health Sciences, San Diego, CA; School of Health Sciences Detachment, Portsmouth, VA.

Length: *Version 1:* 23 weeks (805 hours). *Version 2:* 36 weeks (1360 hours). *Version 3:* 32 weeks (1200 hours).

Exhibit Dates: *Version 1:* 9/75–Present. *Version 2:* 3/72–8/75. *Version 3:* 1/61–2/72.

Objectives: To train technicians to assist medical and pharmacy officers in the compounding and dispensing of pharmaceutical preparations.

Instruction: Lectures in principles of pharmacy, pharmaceutical calculations; inorganic, organic, and pharmaceutical chemistry; basic pharmacology, drug interaction and toxicology; practical experience in compounding and dispensing pharmacy, and pharmacy administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in principles of pharmacy, 5 in pharmaceutical mathematics, 3 in chemistry, 18 in pharmacology, 1 in pharmacy management, 5 in dispensing and 1 in intravenous admixtures, for a total of 38 semester hours (8/77). *Version 2:* In the vocational certificate category, 2 semester hours in pharmaceutical mathematics, 2 in inorganic chemistry, 3 in organic chemistry, 2 in principles of pharmacy, 4 in compounding and dispensing pharmacy, 1 in pharmacy orientation, 1 in typing, 5 in basic pharmacology and toxicology, 1 in pharmacy administration (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in pharmaceutical mathematics, 2 in inorganic chemistry, 3 in organic chemistry, 2 in principles of pharmacy, 4 in compounding and dispensing pharmacy, 1 in pharmacy orientation, 1 in typing, 5 in basic pharmacology and toxicology, 1 in pharmacy administration (2/74); in the upper-division baccalaureate category, 2 semester hours in pharmaceutical mathematics, 2 in inorganic chemistry, 3 in organic chemistry, 2 in principles of pharmacy, 4 in compounding and dispensing pharmacy, 1 in pharmacy orientation, 1 in typing, 5 in basic pharmacology and toxicology, 1 in pharmacy administration (2/74). *Version 3:* In the vocational certificate category, 2 semester hours in pharmaceutical mathematics, 2 in inorganic chemistry, 3 in organic chemistry, 2 in principles of pharmacy, 4 in compounding and dispensing pharmacy, 1 in pharmacy orientation, 1 in typing, 5 in basic pharmacology and toxicology, 1 in pharmacy administration (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in pharmaceutical mathematics, 2 in inorganic chemistry, 3 in organic chemistry, 2 in principles of pharmacy, 4 in compounding and dispensing pharmacy, 1 in pharmacy orientation, 1 in typing, 5 in basic pharmacology and toxicology, 1 in pharmacy administration (2/74); in the upper-division baccalaureate category, 5 semester hours in pharmaceutical mathematics, 2 in laboratory techniques (12/68).

NV-0799-0004

Drug Abuse Education Specialist

Course Number: A-000-0053.

Location: Training Center, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/73–Present.

Objectives: To provide instruction in the development, implementation, evaluation, and revision of command drug and alcohol education and action programs.

Instruction: Lectures, discussions, and practical exercises in organization and administration of drug abuse education programs, including history of abuse, behavioral patterns, problem identification, and rehabilitation techniques. Methods of instruction include communications techniques such as group therapy and role playing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in health sciences (6/75).

NV-0799-0005

Drug and Alcohol Program Advisor

Course Number: A-000-0055.

Location: Training Center, San Diego, CA; Training Center, Charleston, SC; Training Center, Pearl Harbor, HI; Training Center, Rota, Spain; Training Center, Norfolk, VA; Training Center, Treasure Island, CA.

Length: 2 weeks (55 hours).

Exhibit Dates: 9/74–Present.

Objectives: To train command designated officers and senior petty officers to perform as drug and alcohol program advisors.

Instruction: Lectures and discussions of policies concerning drugs and alcohol; physiological and psychological effects; planning and administering prevention programs; identifying, utilizing, and understanding resources both internal and external to the Navy.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in health sciences (6/75).

NV-0801-0001

Nuclear, Biological and Chemical (NBC) Defense (Shipboard)

Course Number: J-2G-420; J-780-420.

Location: Fleet Training Center, Norfolk, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 1/71–Present.

Objectives: To train personnel in hazard detection and decontamination of personnel and material.

Instruction: Lectures and practical exercises in nuclear, biological, and chemical defense afloat, including nature of nuclear radiation, ionization and its effects, fleet radiation detection and measuring equipment, effects of nuclear detonations and minimizing measures, radioactive contamination and decontamination procedures, accidental detonation of nuclear ordnance containing plutonium, and chemical and biological agents, features, effects, defense, and countermeasures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0801-0002

Staff Disaster Preparedness Officer

Course Number: A-7K-0011.

Location: Naval Training Unit, Ft. McClellan, AL.

Length: 6 weeks (124 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train personnel in nuclear, biological, and chemical defense and accident control.

Instruction: Lectures and practical exercises in disaster preparedness, including biological agents, effects, and defense; biological agent dissemination; biological decontamination; chemical agents, effects, and defense; introduction to chemical warfare; CW dissemination; foreign CB capabilities; decontamination of chemical agents; nuclear weapons and effects; atomic and nuclear principles; characteristics and attentuation of ionizing radiation; and effects of ionizing radiation on personnel.

Credit Recommendation: In the vocational certificate category, 3 semester hours in civil defense, 3 in medical technology (5/74).

NV-0801-0003

Disaster Recovery Training I and II

Course Number: None.

Location: Naval Construction Battalion Center, Port Hueneme, CA; Naval Construction Battalion Center, Davisville, RI; Naval Construction Battalion Center, Gulfport, MS.

Length: 4 weeks.

Exhibit Dates: 6/66–12/68.

Objectives: To train personnel to cope with the effects of a disaster.

Instruction: Lectures and practical exercises on disaster control, including fundamentals of nuclear energy, effects of nuclear weapons, fallout, biological and chemical warfare, nuclear accidents, protective equipment, communications, radiac instruments, biological sampling, chemical detection, radiological surveys and decontamination, biological and chemical decontamination, and first aid.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-0801-0004

Nuclear, Biological and Chemical (NBC) Defense for Petty Officers

Course Number: Not available.

Location: *Version 1:* Damage Control Training Center, Philadelphia, PA. *Version 2:* Damage Control School, Treasure Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 5/68–Present.

Objectives: To train personnel to perform as advanced damage controlmen strikers.

Instruction: Lectures and practical exercises in nuclear, biological, and chemical defense afloat, including classification, detection, and decontamination of BW/CW agents and nuclear radiation; operation and maintenance of radiac equipment, maintenance of protective clothing and masks; training of personnel in monitoring and decontamination procedures for repair parties; nuclear warfare defense; and NBC warfare defense organization.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0801-0005

1. Nuclear, Biological and Chemical (NBC) Defense Ashore
2. Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore

Course Number: A-7K-011.

Location: *Version 1:* Army Chemical School, Ft. McClellan, AL. *Version 2:* Schools Command, Treasure Island, CA.

Length: 6 weeks (168–185 hours).

Exhibit Dates: 4/66–Present.

Objectives: To train officers to perform as disaster control officers for shore establishments.

Instruction: Lectures and practical exercises in disaster control procedures, including organization; nuclear, biological, and chemical agents and effects; nuclear, biological, and chemical warfare defense and accident control; disaster control operation; radiological detection; and decontamination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-0801-0006

Drug Abuse Program Officers

Course Number: None.

Location: Naval Training Center, San Diego, CA.

Length: 2 weeks (72 hours).

Exhibit Dates: 4/72–Present.

Objectives: To train selected enlisted personnel to perform as drug abuse program officers.

Instruction: Lectures and practical exercises in the duties of a drug abuse program officer. Course includes identification, education, rehabilitation programs, philosophies, methods, and agencies.

Credit Recommendation: In the vocational certificate category, 1 semester hour in health education (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in health education

(7/74); in the upper-division baccalaureate category, 1 semester hour in health education (7/74).

NV-0801-0007

Navy Drug Abuse Counselor

Course Number: None.

Location: Drug Rehabilitation Center, Miramar, San Diego, CA; Naval Station, Jacksonville, FL.

Length: 8-10 weeks (400-500 hours).

Exhibit Dates: 5/72-Present.

Objectives: To train para-professional drug abuse counselors in screening and referral, identification and counseling of substance abusers.

Instruction: Lectures, seminars, group growth experiences, observation and supervised practicum covering interviewing, evaluating, counseling, referring, recommending, process-calling and progress note writing; basic psychology and selected aspects of sociology and physiology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to abnormal behavior, 2 in counseling theory and practice, 2 in theories of personality, 3 in practicum, 2 in managerial skills, and 1 in principles of alcohol abuse, for a total of 12 semester hours (11/77); in the upper-division baccalaureate category, 3 semester hours in group process theory and practice, 2 in psychopharmacology and 3 in practicum (11/77).

NV-0801-0008

Alcoholism Treatment Specialist (ATS)

Course Number: None.

Location: Naval Alcohol Rehabilitation Center, San Diego, CA.

Length: 10-12 weeks (347-448 hours).

Exhibit Dates: 7/75-Present.

Objectives: To train alcoholism treatment specialists for in-field services in the treatment of alcoholism.

Instruction: Methods of instruction include directed class instruction, group problem solving, structured exercises, practicum, audio-visuals, simulation, role playing, psychodrama, and application. Curriculum areas cover dynamics of human behavior; group processes; introduction to, organization and administration of, and practicum and clinical methods of counseling; social psychology and problems in contemporary society related to substance abuse.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in general psychology, 3 in counseling, 2 in theories of personality and group process, 3 in practicum, 1 in alcohol/drug abuse, and 2 in managerial skills, for a total of 12 semester hours (7/78).

NV-0802-0001

Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors

Course Number: None.

Location: Damage Control Training Center, Treasure Island, CA.

Length: 3 weeks (104 hours).

Exhibit Dates: 1/62-12/68.

Objectives: To train enlisted personnel to assist officers in organizing and conducting training programs in shipboard defense.

Instruction: Lectures in instructor training and in nuclear, biological, and chemical warfare defense afloat.

Credit Recommendation: In the vocational certificate category, 1 semester hour in occupational safety (1/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in occupational safety (1/74).

NV-0802-0002

Nuclear Weapons Disposal Advanced Refresher

Course Number: A-4E-0024.

Location: Explosive Ordnance Disposal School, Indian Head, MD.

Length: 2 weeks (67 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train advanced personnel in the procedures of nuclear ordnance disposal.

Instruction: Lectures and practical exercises in nuclear disposal procedures. Topics include nuclear weapon identification, principles of operation, location of safety devices and components, and packaging and labeling operations for contaminated material and nuclear components.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0802-0003

Surface Explosive Ordnance Disposal (EOD) Advanced Refresher

Course Number: A-4E-0025; A-431-0015.

Location: Explosive Ordnance Disposal School, Indian Head, MD.

Length: 3 weeks (165 hours).

Exhibit Dates: 10/70-Present.

Objectives: To train qualified explosive ordnance disposal personnel in new methods, new equipment, and advanced disposal procedures and safety precautions in explosive ordnance disposal operations.

Instruction: Lectures and practical exercises in explosive ordnance disposal procedures and operations. Topics include explosive hazards, fuses, munitions, and the effects, precautionary measures, and disposal of nuclear and other explosive materials.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0802-0004

Radiographic Safety Officer

Course Number: A-4G-0018.

Location: Welding Class C School, San Diego, CA.

Length: 2 weeks (65 hours).

Exhibit Dates: 2/68-Present.

Objectives: To train personnel to perform as radiographic safety officers and to supervise radiographers.

Instruction: Lectures and practical exercises in fundamentals of radiography, including applications to industrial radiography; interaction of radiation with matter; mathematics related to radiography; variation of dose-rate with distance; source identity; radiation control, detection, and measurement; principles of radiation detection; AEC rules and regulations; duties of radiographic safety officers; standards for protection against radiation; and familiarization with nondestructive testing.

Credit Recommendation: In the vocational certificate category, 4 semester hours in radiation measurement and nondestructive testing (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in radiation measurement and nondestructive testing (5/74); in the upper-division baccalaureate category, 2 semester hours in radiation measurement and nondestructive testing (5/74).

NV-0802-0005

CVS/MAUW Shop Nuclear Weapons Technical

Course Number: J-644-0914; J-4E-9142; J-644-9142.

Location: Nuclear Weapons Training Group, Atlantic, Norfolk, VA.

Length: 2 weeks (65 hours).

Exhibit Dates: 7/71-Present.

Objectives: To train enlisted and officer personnel in special administrative, technical and operational procedures in CVS or MAUW shops with a nuclear weapons capability.

Instruction: Lectures and practical exercises on procedures specific to a CVS or MAUW shop with a nuclear weapons capability, including the effect of nuclear weapons, hazards associated with nuclear weapons, security of classified matter and nuclear weapons, couriers and guards, administrative aspects, weapons familiarization and component description, delivery considerations, inspections and test criteria, CNO-promulgated nuclear weapons system safety rules.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0802-0006

Nuclear Weapons Technical (CVA)

Course Number: J-4E-9122; J-644-9122.

Location: Nuclear Weapons Training Group, Atlantic, Norfolk, VA.

Length: 2 weeks (115 hours).

Exhibit Dates: 3/73-Present.

Objectives: To train W-Division personnel in the special administrative, technical, and operational procedures specific to CVA shops with a nuclear weapons capability.

Instruction: Lectures and practical exercises on administrative and technical operations connected with the nuclear weapons capability of CVA shops, including the effects of nuclear weapons; responsibilities; nuclear physics fundamentals; nuclear weapons safety; hazards associated with nuclear weapons; radiation detection instruments; reliability of nuclear weapons; weapons modernization; technical reports; B43; B57; B28; B61; stockpile reports; and security of nuclear weapons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0802-0007

Nuclear Weapons Disposal

Course Number: A-431-0013.

Location: Explosive Ordnance Disposal School, Indian Head, MD.

Length: 6 weeks (232 hours).

Exhibit Dates: 9/72-Present.

Objectives: To train officers and enlisted personnel in nuclear ordnance disposal procedures.

Instruction: Lectures and practical exercises in nuclear ordnance disposal procedures, including weapon identification, elementary principles of operation, location of safety devices and components, radiation hazards and packaging, and personnel decontamination operations,

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-0802-0008

ABC WARFARE DEFENSE AFLOAT

Course Number: Not available.

Location: *Version 1:* Damage Control Training Center, Philadelphia, PA. *Version 2:* Schools Command, Treasure Island, CA.

Length: 5 weeks (173–174 hours).

Exhibit Dates: 12/59–12/68.

Objectives: To train officers in atomic, biological, and chemical warfare defense afloat.

Instruction: Lectures and practical exercises on ABC warfare defense afloat, including atomic, biological, and chemical warfare effects on personnel, ships and equipment; methods used to reduce or negate these effects; casualty minimization; requirements of shipboard ABC-damage control; radiological detection; nuclear weapon accidents; protection and decontamination; disaster recovery; shipboard organization; and anti-personnel biological warfare.

Credit Recommendation: Credit is not recommended because of the specialized nature of the course (12/68).

NV-0802-0009

CVA/CVS AIR LAUNCHED WEAPONS SUPERVISOR

(CVA/CVS Air Launched Weapons)

Course Number: C-646-3103.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, Mayport, FL; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Alameda, CA.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 8/67–Present.

Objectives: To train personnel in the complete sequence of air launched weapons handling.

Instruction: Lectures and practical exercises in procedures and safety precautions in receiving, inspection, strikedown, stowage, breakout, assembly, fuzing, and reporting and recording of air-launched weapons. Topics include ammunition, pyrotechnics, aircraft munitions, and guided missiles.

Credit Recommendation: In the vocational certificate category, 3 semester hours in explosives (5/74).

NV-0802-0010

FALLOUT SHELTER ANALYSIS

Course Number: A-4A-0015.

Location: Civil Engineer Corps Officers School, Port Hueneme, CA.

Length: 2 weeks (74 hours).

Exhibit Dates: 5/72–Present.

Objectives: To provide personnel with an understanding of the strategic nuclear threat and the rationale and importance of a fallout shelter system.

Instruction: Lectures and practical exercises in nuclear energy and the effects of nuclear weapons, fallout radiation shielding, computer applications, and shelter planning and utilization.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

NV-0803-0001

AMPHIBIOUS RECONNAISSANCE

Course Number: G-2E-4610; G-010-4610; H-2E-3923; H-010-3923.

Location: Landing Force Training Command, Norfolk, VA; Naval Amphibious Base, San Diego, CA.

Length: 3–4 weeks (181–191 hours).

Exhibit Dates: 9/69–Present.

Objectives: To train officers and enlisted personnel to conduct amphibious reconnaissance patrols.

Instruction: Lectures in map reading, scouting and patrolling techniques, hydrography, and underwater skills, with emphasis on physical conditioning and swimming.

Credit Recommendation: In the vocational certificate category, credit in evaluation education and swimming on the basis of institutional examination (5/74); in the lower-division baccalaureate/associate degree category, credit in physical education and swimming on the basis of institutional evaluation (5/74); in the upper-division baccalaureate category, credit in physical education and swimming on the basis of institutional evaluation (5/74).

NV-0803-0002

1. ADVANCED NAVAL PARACHUTIST, CLASS C1
2. ADVANCED NAVAL PARACHUTIST, NP-II CLASS C

(Naval Parachutist, Advanced, Class C)

Course Number: C-602-2021.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: *Version 1:* Self-paced 3 weeks (120 hours). *Version 2:* 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 5/74–Present. *Version 2:* 5/69–4/74.

Objectives: To provide selected Navy and Marine Corps personnel with knowledge and skills to accomplish delayed stable fall parachute descents utilizing advanced qlide surface parachutes and high-altitude oxygen equipment.

Instruction: Lectures and practical exercises to include advanced parachute theory, equipment and parachute operations, precision target accuracy, extended delayed opening descents, safety check of parachutist equipment, and emergency actions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-0902-0001

MANAGEMENT OF MARINE CORPS CLUBS

Course Number: S-8E-0013.

Location: Special Services Administrative Activity, Patuxent River, MD.

Length: 4 weeks (140 hours).

Exhibit Dates: 1/77–Present.

Objectives: To train enlisted personnel, civilians and officers to manage officers, NCO, and enlisted clubs.

Instruction: Instruction includes lectures, audio-visual presentations, and practical exercises designed to develop managerial skills needed to successfully operate a Marine Corps club. Included are club regulations, accounting, and cost controls and personnel procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in food and beverage management (7/79); In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to institutional management (7/79).

NV-0902-0002

RECREATION MANAGEMENT

Course Number: S-8E-0015.

Location: Special Services Administrative Activity, Patuxent River, MD.

Length: 4 weeks (140 hours).

Exhibit Dates: 1/77–Present.

Objectives: To train Navy, Marine, and civilian personnel to manage Navy/Marine recreational programs and facilities.

Instruction: Instruction includes lectures and practical exercises in the management of recreational facilities and programs. Course includes development of management and administrative abilities in relationship to recreational facilities, personnel management, financial management, accounting, and resource management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in recreational facilities management (7/79); In the lower-division baccalaureate/associate degree category, 2 semester hours in introduction to business management (7/79).

NV-1002-0001

BUILDER—TOOL AND EQUIPMENT MAINTENANCE (BU "C")

Course Number: A-712-0010.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA; Construction School, Davisville, RI.

Length: 10–12 weeks (320–360 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train personnel to maintain, recondition, and repair tools and machinery.

Instruction: Lectures and practical exercises in preventive maintenance, reconditioning and repair of all types of carpenter shop machinery including: all powered hand tools for the builder construction trade; non-powered edged and non-edged hand tools for the construction trade; woodworking and sawmill sharpening equipment; two-man saw mill; splice band; saw blades; and sanding and drive belts, coordinate stocking and procurement.

Credit Recommendation: In the vocational certificate category, 5 semester hours in industrial arts/tool and equipment repair (7/76); in the lower-division baccalaureate/associate degree category, 3 semester hours in industrial arts/tool and equipment repair (7/76).

NV-1115-0001

INTERMEDIATE MAINTENANCE LEVEL DATA ANALYSIS, CLASS C

Course Number: None.

Location: Naval School, Norfolk, VA; Naval School, San Diego, CA.

Length: 3 weeks (102 hours).

Exhibit Dates: 6/69–Present.

Objectives: To train officers and enlisted personnel to apply statistical analysis to data collection in accounting and maintenance systems.

Instruction: Lectures in basic applied statistical analysis, including mathematics review, frequency distribution, dispersion, confidence estimation, trends, control charts, man-hour accounting, and computer equipment usage.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in introductory statistics (2/74); in the upper-division baccalaureate category, 1 semester hour in introductory statistics (2/74).

NV-1115-0002

1. MANAGEMENT ANALYSIS, CLASS C
2. MANAGEMENT ANALYSIS, CLASS O

Course Number: *Version 1:* C-7E-2010. *Version 2:* None.

Location: Air Technical Training Center, Memphis, TN.

Length: 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 5/72–Present. *Version 2:* 9/68–4/72.

Objectives: To provide naval officers experienced in maintenance management with training in statistical analysis and managerial data analysis.

Instruction: Lectures and laboratory in statistical methods, inference, data presentation, and management concepts and problems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic statistics (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic statistics (6/75). *Version 2:* In the vocational certificate category, 3 semester hours in basic statistics (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic statistics (2/74); in the upper-division baccalaureate category, 3 semester hours in managerial statistics (12/68).

NV-1205-0001

Music, Class A, Basic
(Basic Course (Class A))
(Naval School of Music, Class A, Basic)
(Bandsman Basic (Army))
(Band Instrumentalist (Army))

Course Number: A-450-0010; 450-F1.

Location: School of Music, Little Creek, Norfolk, VA.

Length: *Version 1:* 23 weeks (416–602 hours). *Version 2:* 24–36 weeks (618 hours).

Exhibit Dates: *Version 1:* 1/79–Present. *Version 2:* 5/68–12/78.

Objectives: To provide Navy musicians with essential performance skills and with basic knowledge of theory, harmony, and ear training for purposes of instrumental technique improvement.

Instruction: *All Versions:* Fundamental notation; directions for performance and dance band devices; elementary phrase and triad construction; transposition and instruments; dance band notation reading; marching signal recognition; tuning, ensemble, and sight reading; marching position and drills; elements of music: aural and written rhythms and tonal relationships; transposing; self-study discipline and private instruction; indoctrination in history, structure, and procedures of Navy school. *Version 2:* Includes simple four-part writing.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in elementary theory/harmony (excluding four part writing), 1 in ear training/sight singing, 2 in jazz theory/ improvisation, 2-4 in applied performance (individual instruction) (2/79); in the upper-division baccalaureate category, 2 semester hours in performing ensembles (2/79) *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in music ensemble, 6 in music theory, 4 in applied music (2/74).

NV-1205-000

Music Advanced, Class C-7
(Assistant Bandleader)
(Music, Class B, Advanced)
(Advanced Course (Class B))
(Naval School of Music, Class B, Advanced)

Course Number: *Version 1:* A-450-0014. *Version 2:* A-450-0011.

Location: School of Music, Little Creek, Norfolk, VA; School of Music, Amphibious Base, Norfolk, VA.

Length: *Version 1:* 40 weeks (1200 hours). *Version 2:* 52 weeks (2080 hours).

Exhibit Dates: *Version 1:* 1/78–Present. *Version 2:* 1/68–12/77.

Objectives: To train student bandleaders to plan and prepare a Navy unit band for any of its wide variety of commitments, to conduct with skill any engagement performed by a Navy unit band, to effectively administer a Navy unit band, to plan and conduct an effective in-service training program, to apply the correct procedures for supplying a Navy unit band with instruments and accessories, to arrange music for a band and its components, to perform basic fundamentals on all band instruments, and to make minor repairs on all band instruments; and to provide the student bandleader with training in the theories, principles, and mechanics of conducting, the importance and methods of good band administration, the techniques of arranging, and the theories of advanced harmony.

Instruction: *Version 1:* The course comprises block courses in Band Administration, including instruction in band locations and leader billet allowance, organization and instrumentation, regulations, instrument supply, and personnel records; basic repair of wind instruments; Advanced Band Management, including personnel and public relation; Advanced Band Administration, covering rules for ceremonies, reviews, parades, and presentations; Instrument Class, covering performance on percussion, woodwind, and brass instruments: Drum Majoring, covering baton and instrument positioning, and general principles of marching bands; Advanced Arranging, including instruction on notation, melodic and harmonic analysis, instrumentation, principles of scoring and styles, and project completion and analysis; Advanced Ear Training, including instruction in aural recognition, sight-singing of diatonic melodies, scale fingerings, basic keyboard harmony, and solfeggio, melodic and harmonic dictation; Advanced Harmony, covering a review of basic harmony, secondary dominants, chromatically altered chords, and advanced modulation; Advanced Dance Band Rehearsal Techniques, including performance devices, rehearsal techniques, materials, physical setup and transportation, and dance band literature; Advanced Conducting, including rehearsal psychology, choral and accompaniment techniques, complex beat patterns, showmanship, and practical experience conducting from a full score; Rehearsal Planning and Techniques practical application of conducting skills during daily rehearsals; Advanced Leadership and Speech, covering basic leadership skills, public speaking, and military subjects; and Dance Band Rehearsal Techniques, including practical application of all rehearsal techniques. *Version 2:* The course comprises twenty blocks: Band Administration, including instruction in band locations and leader billet allowance, organization and instrumentation, regulations, instrument supply, and personnel records; Advanced Music Survey, covering a complete history of Western music; Advanced Maintenance and Repair, covering repair of wind and string bass instruments; Advanced Band Management, including personnel and public relations; Advanced Band Administration, covering rules for ceremonies, reviews, parades, and presentations; Advanced Form and Analysis, covering phrase, cadence, period and part-form analysis, as well as rondo, sonata, and irregular-form analysis; Advanced Instrument Class, covering performance on percussion, woodwind, and brass instruments; Advanced Music Survey, including a survey of band literature and current trends in popular music; Advanced Drum Majoring, covering baton and instrument positioning, and general principles of marching bands; Advanced Arranging, including instruction on notation, melodic and harmonic analysis, instrumentation, principles of scoring and styles, and project completion and analysis; Advanced Ear Training, including instruction in aural recognition, sight-singing of diatonic melodies, scale fingerings, basic keyboard harmony, and solfeggio, melodic and harmonic dictation; Advanced Harmony, covering a review of basic harmony, secondary dominants, chromatically altered chords, and advanced modulation; Advanced Dance Band Rehearsal Techniques, including performance devices, rehearsal techniques, materials, physical setup and transportation, and dance band literature; Advanced Counterpoint, including species, canonic, three-voice, and invertible counterpoint and fugue; Advanced Conducting II, including rehearsal psychology, choral and accompaniment techniques, complex beat patterns, showmanship, and practical experience conducting from a full score; Conducting I, including basic beat patterns, musical terms and musical markings; Practical Conducting, covering rehearsal planning and techniques; Advanced Conducting III and IV, including advanced band literature and conducting techniques, and practical application of conducting skills during daily rehearsals; Advanced Leadership and Speech, covering basic leadership skills, public speaking, and military subjects; and Dance Band Rehearsal Techniques, including practical application of all rehearsal techniques.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in advanced theory/harmony/ear training, 1 in elementary class piano, 1 in instrument techniques (brass, woodwind and percussion) (2/79); in the upper-division baccalaureate category, 4 semester hours in advanced arranging, 4 in advanced conducting, 3 in dance band techniques, 3 in band management as an elective, 2 in public speaking, 3 in personnel managment as an elective (2/79); in the graduate degree category, 2 semester hours in advanced conducting based on institutional evaluation (2/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in music survey, 1 in maintenance of musical instruments, 15 in music theory, 2 in music performance, 1 in music education, 2 in music ensemble, 2 in basic conducting, 6 in advanced conducting (4/74); in the upper-division baccalaureate category, 1 semester hour in maintenance of musical instruments, 15 in music theory, 2 in music performance, 1 in music education, 2 in music ensemble, 2 in basic conducting, 6 in advanced conducting (4/74).

NV-1205-0003

Music Intermediate, Class C-1
(Music Intermediate, Class C)
(Music, Class C, Refresher)
(Naval School of Music, Class C, Refresher)
(Refresher Course (Class C))
(Band Group Leader (Army))

Course Number: A-450-0012; 450-F2.

Location: School of Music, Little Creek, Norfolk, VA.

Length: *Version 1:* 23 weeks (960 hours). *Version 2:* 24 weeks (960 hours).

Exhibit Dates: *Version 1:* 8/75–Present. *Version 2:* 2/70–7/75.

Objectives: To advance performance skills and to provide student musicians with a refresher course in the proper care of musical instruments, development of effective approaches to tone production and techniques, knowledge of and techniques, knowledge of written and sounding ranges of all instruments of the band, transposition of melodies for all instruments of the band, basic mechanics of transcribing and scoring for military marching and dance bands, performance of baton signals and positions, methods of aligning and maneuvering marching bands on fields, techniques of conducting beat patterns at varying dynamic levels, and basic knowledge of music theory, harmony, and sight singing; and to prepare student musicians for leadership of concert, marching, or dance bands.

Instruction: *Version 1:* The course comprises block courses in Individual Instrument Instruction and Individual Practice, including instruction designed to fit the capabilities of each student and technical instruction in embouchure formation, breathing, attack and release, tone, intonation, articulation, flexibility, instrumental and dynamic range, rudiments, and sight reading; Theory, Harmony, Ear Training, covering a review of music theory and analysis, four-part writing, figured bass for dealing with triad inversions, dominant 7th chords, secondary triads, chord progressions, non-harmonic tones, diatonic 7th, higher dominant dischords, simple modulation, and secondary dominant chords; Instrumentation, covering the unique properties and scoring problems of each instrument of the band through discussion of theoretical practice, part and score analysis, and simple scoring for small groups of instruments; Arranging, covering scoring for woodwind choirs, brass choirs, marching bands, and dance bands; Drum Majoring, including baton signals and their use in marching formations; Conducting, including basic beat patterns, preparatory beats, tempo changes, and honors music; Leadership, including principles of leadership, command responsibilities, and special functions of petty officers; Concert Band, including rehearsals of standard and current publications for military and concert bands; Dance Band, including rehearsals of standard and current publications for dance bands. *Version 2:* The course comprises ten blocks: Indoctrination, including instruction in the proper care and maintenance of all musical equipment; Individual Instrumentation Instruction and Individual Practice, including individual instruction designed to fit the capabilities of each student and technical instruction in embouchure formation, breathing, attack and release, tone, intonation, dealing with triad inversions, dominant 7th chords, second triads, chord progressions, non-harmonic tones, diatonic 7th, higher dominant dischords, simple modulation, and secondary dominant chords; Instrumentation, covering the unique properties and scoring problems of each instrument of the band through discussion of theoretical practice, part and score analysis, and simple scoring for small groups of instruments; Arranging, covering scoring for woodwind choirs, brass choirs, marching bands, and dance bands; Drum Majoring, including baton signals and their use in marching formations; Conducting, including basic beat patterns, preparatory beats, tempo changes, and honors music; Leadership, including principles of leadership, command responsibilities, and special functions of petty officers; Concert Band, including rehearsals of standard and current publications for military and concert bands; Dance Band, including rehearsals of standard and current publications for dance bands.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 8 semester hours in intermediate theory/harmony/ear training, 2 in applied music (individual instruction on principle instrument), 1 in applied music: woodwind, percussion or brass (secondary instrument), 2–4 in concert performing ensembles, 2 in marching band (2/79); in the upper-division baccalaureate category, 2-3 semester hours in instrumental arranging, 1 in elementary conducting (2/79). *Version 2:* In the lower-division baccalaureate/associate degree category, 8 semester hours in music theory, 6 in music performance, and an additional 3 to 6 semester hours in music performance on the basis of performance audition (4/74).

NV-1303-0001

1. Machinist's Mate, Class A1 (600 PSI)
   (Machinist's Mate, Class A1 (1200 PSI))
2. Machinist's Mates, Class A
3. Machinist's Mate, Class A

Course Number: A-651-0015.

Location: Service Schools Command, Great Lakes, IL.

Length: *Version 1:* Self-paced 6–8 weeks (336–380 hours). *Version 2:* 15 weeks (455 hours). *Version 3:* 12 weeks (365 hours).

Exhibit Dates: *Version 1:* 1/75–Present. *Version 2:* 2/68–12/74. *Version 3:* 5/63–1/68.

Objectives: To qualify nonrated personnel as machinist's mates, class A.

Instruction: *All Versions:* Lectures and practical exercises in the duties of machinist's mates, class A, including refrigeration, auxiliary plant operation, lubrication, and propulsion systems. *Version 1:* Self-paced instruction includes nomenclature, operation, systems diagrams, and maintenance of the 600 PSI or 1200 PSI propulsion systems and supporting auxiliary equipment. *Version 2:* Topics include pump maintenance, and pneumatics and hydraulics. Algebra, thermodynamics, trigonometry, and chemistry covered in nuclear option; and refrigeration, distillation, and auxiliary plant operation covered in conventional option. *Version 3:* Topics include basic information; mathematics review and blueprint reading; tools, instruments, and materials; basic principles of steam engineering; temperature and pressure measuring instruments; heating, ventilation, and insulation; valves, pipes, tubing, and fittings; pumps and accessories; principal piping systems; logs, records, sound-powered telephones, and circuits; damage control and survival at sea; and distilling plants.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours as technical electives in automotive or mechanical programs and 6 in steam plant systems maintenance or related programs (9/77). *Version 2:* In the vocational certificate category, 8 semester hours as a technical elective in mechanical maintenance, and 3 additional semester hours in science for students completing the nuclear option (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours as a technical elective in mechanical maintenance, and 3 additional semester hours in science for students completing the nuclear option (7/74). *Version 3:* In the vocational certificate category, 8 semester hours as a technical elective (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours as a technical elective (7/74).

NV-1304-0001

Introduction to Ocean Engineering

Course Number: A-4A-0025.

Location: Naval School Civil Engineer Corps Officers, Port Hueneme, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/70–Present.

Objectives: To provide students with a general knowledge of ocean engineering.

Instruction: Lectures in problems and techniques of ocean engineering, including physical and geological oceanography, legal aspects, and diving.

Credit Recommendation: In the vocational certificate category, 2 semester hours in ocean engineering (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in oceanography (12/73); in the upper-division baccalaureate category, 2 semester hours in marine science (12/73).

NV-1304-0002

Air-Ocean Environment Course, Class C

Course Number: None.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 4–7 weeks (160–280 hours).

Exhibit Dates: 2/65–Present.

Objectives: To provide enlisted personnel with a basic understanding of the physics and chemistry of oceans, and the principles of underwater sound.

Instruction: Lectures and practical experiences in the fundamentals of underwater acoustics, physical oceanography, observational equipment and procedure, and environmental analysis and prediction.

Credit Recommendation: In the vocational certificate category, 6 semester hours in marine sciences (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in oceanography (12/73); in the upper-division baccalaureate category, 6 semester hours in ocean engineering (12/73).

NV-1304-0003

Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers, P3C

Course Number: E-2D-0072; E-2D-072.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2–3 weeks (82–105 hours).

Exhibit Dates: 9/72–Present.

Objectives: To train naval flight officers to operate in equipped VP squadrons and to teach tactics and weaponry of antisubmarine warfare.

Instruction: Lectures in the procedures for antisubmarine warfare, including oceanography, underwater acoustics, AASW tactical procedures, AASW sensors and associated equipment, current electronic warfare concepts and requirements, and mission procedures. Includes mathematical treatment of acoustic and oceanographic principles.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in oceanography (4/74); in the upper-division baccalaureate category, 2 semester hours in oceanography (4/74).

NV-1304-0004

Aerographer's Mate, Class A

Course Number: C-420-2010.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 14–18 weeks (510–717 hours).

Exhibit Dates: 3/56–Present.

Objectives: To train enlisted personnel to perform as aerographer's mates.

Instruction: Lectures and practical exercises in meteorology, including matter, heat, humidity, and the atmosphere; surface observations of temperature, psychrometric, wind, pressure, precipitation, and sky conditions; upper-air observations; synoptic codes; oceanography; instrumentation, charts, logs; weather map analysis; and basic typing training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in weather forecasting or meteorology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in weather forecasting or meteorology (5/74); in the upper-division baccalaureate category, 3 semester hours in weather forecasting or meteorology (12/68).

NV-1304-0005

Aerographer's Mate, Class B

Course Number: *Version 1:* C-420-2011. *Version 2:* C-420-11.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: *Version 1:* 18 weeks (583 hours). *Version 2:* 22–26 weeks (800–1033 hours).

Exhibit Dates: *Version 1:* 8/73–Present. *Version 2:* 2/56–7/73.

Objectives: To train aerographer's mates in meteorology, air observation, and supervision and preparation of weather and oceanographic forecasts.

Instruction: *All Versions:* Lectures and practical exercises in meteorology, air observation, and supervision and preparation of weather and oceanographic forecasts, including various chart analyses, satellite meteorology, instruments, oceanography, map analysis, and forecasting under various conditions. *Version 2:* Includes atmospheric conditions, tropical meteorology, numerical weather prediction, management, mathematics, and physics applicable to meteorology, and flight observation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in weather forecasting or meteorology (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in weather forecasting or meteorology (5/74); in the upper-division baccalaureate category, 3 semester hours in weather forecasting or meteorology (5/74). *Version 2:* In the vocational certificate category, 12 semester hours in weather forecasting or meteorology (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in weather forecasting or meteorology (5/74); in the upper-division baccalaureate category, 6 semester hours in weather forecasting or meteorology (12/68).

NV-1304-0006

Meteorological Satellite, Class C

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 4 weeks (140 hours).

Exhibit Dates: 8/66–12/68.

Objectives: To train aerographer's mates in the operation and use of meteorological satellites.

Instruction: Lectures and practical exercises in the operation of automatic picture transmission terminal ground equipment and the interpretation and application of the received data, including equipment and procedure, operational satellite system, data acquisition and gridding, operation of APT terminal ground equipment, extraction and use of APT data, synoptic application, and operational use of APT equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1401-0001

Disbursing Clerk (Pay Records Maintenance) Class C

Course Number: A-542-0012.

Location: Naval School Command, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/71–Present.

Objectives: To provide enlisted personnel with the knowledge and skills involved in the maintenance of pay records.

Instruction: Lectures and practical exercises in the use of the calculator; computation of pay; items of pay and allowances; types of deductions and collections; and corrections, opening, closing, and transmittal of pay records.

Credit Recommendation: In the vocational certificate category, 1 semester hour in clerical procedures (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in clerical procedures (2/74).

NV-1401-0002

Disbursing Clerks, Class A

Course Number: A-542-0011.

Location: Naval Schools Command, Newport, RI; Naval Schools, Supply, San Diego, CA.

Length: 9–11 weeks (330–360 hours).

Exhibit Dates: 12/59–12/68.

Objectives: To train enlisted personnel to perform the duties of naval disbursing clerks.

Instruction: Lectures and practical experience in basic naval funds disbursement procedures; accounting; pay and allowances; insurance, income tax, and savings deposits; vouchers; public funds; and typing and correspondence.

Credit Recommendation: In the vocational certificate category, 6 semester hours in clerical finance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in clerical finance (2/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

NV-1401-0003

Automated Supply and Accounting Systems Afloat (AN/UYK-5(V))

Course Number: A-8B-0019.

Location: Supply Corps School, Athens, GA.

Length: 2 weeks (65 hours).

Exhibit Dates: 7/72–Present.

Objectives: To train supply officers in automated supply systems afloat.

Instruction: Lectures and practical exercises in automated supply systems afloat, including systems operation, automatic data processing functions not related to supply and accounting, and resources utilization.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1402-0001

Data Processing Technician, Class C, Systems Analysis and Design
(Data Processing Systems Analysis, Class C)

Course Number: A-532-0019; A-532-019.

Location: Service School Command, San Diego, CA.

Length: 4 weeks (110–114 hours).

Exhibit Dates: 12/68–Present.

Objectives: To provide experienced programmers with basic training in systems analysis and design.

Instruction: Lectures and practical experience in data processing systems analysis, including data communication concepts; data gathering and data analysis; system requirements specification; system design fundamentals; technical and economic feasibility study; manpower planning; system documentation; conversion, evaluation, and maintenance planning; and program evaluation and review techniques.

Credit Recommendation: In the vocational certificate category, 2 semester hours in business systems analysis (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in business systems analysis (2/74); in the upper-division baccalaureate category, 2 semester hours in business systems analysis (2/74).

NV-1402-0002

1. AN/USQ-20 Basic Programming
2. Naval Tactical Data System (NTDS) Basic Programmer (Operational)

Course Number: K-2G-1020.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: *Version 1:* 8 weeks (233 hours). *Version 2:* 7 weeks (210 hours).

Exhibit Dates: *Version 1:* 4/68–Present. *Version 2:* 9/64–3/68.

Objectives: To train personnel in the basic principles of programming and operating the NTDS unit computer.

Instruction: Practical application of principles of programming, basics of digital computers, flowcharting, unit computer assembler programming techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 4 semester hours in computer programming (12/68). *Version 2:* In the vocational certificate category, 4 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 4 semester hours in computer programming (12/68).

NV-1402-0003

Naval Tactical Data Systems (NTDS)—Data Collection and Display (Basic Enlisted)

Course Number: J-2G-352; J-221-352.

Location: Fleet Combat Directions Systems Training Center Atlantic, Dam Neck, VA.

Length: 3 weeks (105 hours).
Exhibit Dates: 1/73–Present.
Objectives: To provide enlisted personnel with the fundamental knowledge and skills to perform data input functions.
Instruction: Operational experience in NTDS data links and communication procedures, data input console and program functions, and data display equipment.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1402-0004

Naval Tactical Data Systems (NTDS) Intermediate Programmer Course (CS-1)

Course Number: K-2G-1026.
Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.
Length: 3 weeks (86–90 hours).
Exhibit Dates: 3/66–Present.
Objectives: To teach military or civilian personnel with previous programming experience the use of CS-1 compiling system language.
Instruction: Lectures and practical exercises on principles and concepts, programming techniques, and data design operations.
Credit Recommendation: In the vocational certificate category, 2 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 2 semester hours in computer programming (2/74).

NV-1402-0005

Naval Tactical Data System (NTDS)—Data Utilization—Basic
(NTDS Data Utilization)

Course Number: K-2G-0038; K-2G-3532; J-221-3532; J-2G-353; J-221-353.
Location: Fleet Combat Training Center Pacific, San Diego, CA; Fleet Combat Training Center Atlantic, Dam Neck, Virginia Beach, VA.
Length: 3 weeks (105 hours).
Exhibit Dates: 2/73–Present.
Objectives: To provide officers and senior enlisted personnel with fundamental knowledge and skills as related to the overall operation of the Naval Tactical Data System, stressing performance on the data user console.
Instruction: Lectures and practical exercises in NTDS fundamentals; data display equipment; data input console functions; data user console functions; data links and communications procedures; operational program functions; related equipment/systems.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (2/74).

NV-1402-0006

Naval Tactical Data Systems (NTDS) Data Utilization
(Naval Tactical Data Systems (NTDS) Evaluator/Supervisor)

Course Number: K-2G-1010.
Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.
Length: 3–4 weeks (104–136 hours).
Exhibit Dates: 12/68–Present.
Objectives: To train personnel in the operation of the naval technical data system.
Instruction: Introduction to digital computers; block diagramming; data processing equipment; input, user, and system functions; and operational mock-up.
Credit Recommendation: In the upper-division baccalaureate category, credit in computer principles on the basis of institutional evaluation (12/68).

NV-1402-0007

IBM System 360 Computer System Programming (COBOL Language), Class C

Course Number: A-532-0015.
Location: Data Processing Technician Class C School, San Diego, CA.
Length: 4 weeks (102 hours).
Exhibit Dates: 7/71–Present.
Objectives: To teach data processing technicians the concepts and techniques of coding programs in COBOL.
Instruction: Lectures and practical exercises in drawing program flow charts, COBOL language, program structures, and debugging programs.
Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

NV-1402-0008

Fleet Data Processing Officers Training

Course Number: A-8B-0016.
Location: Supply Corps School, Athens, GA.
Length: 3 weeks (180 hours).
Exhibit Dates: 11/72–Present.
Objectives: To train officers in ADP operations management, analysis, and programming.
Instruction: Lectures and practical exercises in operations management, flow charting, design of programs, and computer language (COBOL).
Credit Recommendation: In the vocational certificate category, 2 semester hours in data processing principles (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (2/74); in the upper-division baccalaureate category, 2 semester hours in data processing principles (2/74).

NV-1402-0009

CMS-2 Programming (CP-642 A&B/USQ-20)

Course Number: J-7E-3772; J-532-3772.
Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.
Length: 4 weeks (140 hours).
Exhibit Dates: 12/71–Present.
Objectives: To train experienced computer programmers to use the CMS-2 compiling system for automatic programming on CP-642 A&B/USQ-20 computers.
Instruction: Lectures and practical exercises in CMS-2 compiler language and operations; CS-1, CMS-2 differences and similarities; and automatic data processing programming.
Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

NV-1402-0010

DD963 Naval Tactical Data Systems (NTDS) Data Input

Course Number: K-221-0075.
Location: Fleet Combat Training Center, Pacific, San Diego, CA.
Length: 2 weeks (70 hours).
Exhibit Dates: 9/77–Present.
Objectives: To train selected enlisted personnel in the skills related to the data collection area of the DD963 Naval Tactical Data System.
Instruction: Classroom lectures and laboratory exercises in NTDS equipment, input functions, user functions, data links, and mock-up/chalk talk.
Credit Recommendation: No credit is recommended because of the limited specialized nature of the course(7/78).

NV-1402-0011

Digital Fundamentals
(Computer Basics Class C Electronics)

Course Number: None.
Location: Electronics Technician School, Great Lakes, IL.
Length: 8 weeks (240 hours).
Exhibit Dates: 10/62–Present.
Objectives: To train personnel in computer basics.
Instruction: Lectures and practical exercises in digital, analog, and hybrid computer fundamentals and concepts, including fundamentals of digital computers and data processing techniques, number systems, programming, Boolean algebra, arithmetic operations, control, magnetics, semiconductor logic, analog computer fundamentals, analog components and mathematical applications, analog mechanization, hybrid computer fundamentals, conversion techniques, digital differential analyzer, and algebra.
Credit Recommendation: In the vocational certificate category, 4 semester hours in data processing principles, 2 in switching circuits, 2 in analog circuits (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in data processing principles, 1 in switching circuits, 1 in analog circuits (4/74); in the upper-division baccalaureate category, 3 semester hours in computing science (12/68).

NV-1402-0012

Digital and Analog Computer Fundamentals
(Computer Basics Class C Electronics)

Course Number: None.
Location: Electronics Technician School, Great Lakes, IL.
Length: 14 weeks (420 hours).
Exhibit Dates: 10/62–12/68.
Objectives: To train personnel in computer basics.
Instruction: Lectures and practical exercises in digital, analog, and hybrid computer fundamentals and concepts, including fundamentals of digital computers and data processing techniques, number systems, programming, Boolean algebra, arithmetic operations, control, magnetics, semiconductor logic, analog computer fundamentals, analog components and mathematical applications, analog mechanization, algebra, hybrid computer fundamentals, conversion techniques, and digital differential analyzer.
Credit Recommendation: In the vocational certificate category, 4 semester hours in data processing principles, 3 in switching

circuits, 2 in analog circuits (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in data processing principles, 2 in switching circuits, 1 in analog circuits (4/74); in the upper-division baccalaureate category, 5 semester hours in computing science (12/68).

NV-1402-0013

Digital, Analog, and Hybrid Computer Fundamentals
(Computer Basics Class C Electronics)

Course Number: None.

Location: Electronics Technician School, Great Lakes, IL.

Length: 16 weeks (480 hours).

Exhibit Dates: 10/62–12/68.

Objectives: To train personnel in computer basics.

Instruction: Lectures and practical exercises in digital, analog, and hybrid computer fundamentals and concepts, including fundamentals of digital computers and data processing techniques, number systems, programming, Boolean algebra, arithmetic operations, control, magnetics, semiconductors, logic, analog computer fundamentals, analog components and mathematical applications, algebra, analog mechanization, hybrid computer fundamentals, conversion techniques, and digital differential analyzer.

Credit Recommendation: In the vocational certificate category, 4 semester hours in data processing principles, 2 in switching circuits and 2 in analog circuits (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in data processing principles, 2 in switching circuits and 1 in analog circuits (4/74); in the upper-division baccalaureate category, 6 semester hours in computing science (12/68).

NV-1402-0014

Computer Programming Orientation

Course Number: K-2G-1021.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/65–12/68.

Objectives: To teach military, civilian, and contractor personnel the basic principles of programming the NTDS digital computer, the CS-1 compiling system, and the concepts of modular programming.

Instruction: Lectures on the basics of digital computers; principles of programming; NTDS unit computer; principles of operation and programming techniques; compiling language (CS-1); modular programming.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 2 semester hours in computer management (12/68).

NV-1402-0015

Basic Programming Orientation for Middle Management

Course Number: K-532-0001.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 2 weeks (56 hours).

Exhibit Dates: 11/71–Present.

Objectives: To train management personnel in the basic principles of digital computer programming in machine code, direct code, and source language, and in the operational characteristics of the NTDS format computer.

Instruction: Lectures and practical exercises in orientation to programming; arithmetic of programming; programming techniques; program languages and methods of use; equipment; and practical programming.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer programming (2/74); in the upper-division baccalaureate category, 1 semester hour in computer programming (2/74).

NV-1402-0016

CP-967/UYK Computer Maintenance (Electronics Technician, Class C1)

Course Number: A-150-0081.

Location: Service School Command, San Diego, CA.

Length: 6 weeks (180 hours).

Exhibit Dates: 10/70–Present.

Objectives: To train electronics technicians familiar with digital principles to maintain and repair the 3-M System's CP-967/UYK computer and be able to operate the system in all modes.

Instruction: Lectures and practical exercises on operation of computer, preventive maintenance, troubleshooting, replacement of malfunctioning components, and circuitry of components.

Credit Recommendation: In the vocational certificate category, 4 semester hours in digital computer maintenance (11/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer maintenance (11/77).

NV-1402-0017

CMS-2 Compiler Language Programming

Course Number: K-532-0003.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 5 weeks (150 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train military and civilian personnel to write, execute, and interpret computer programs in assembler- and compiler-level languages.

Instruction: Lectures on assembly and compiler languages, and practical programming procedures and practices.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

NV-1402-0018

1. Data Analysis, Class C
2. Aviation Maintenance Data Analysis, Class C

Course Number: *Version 1:* C-516-2011. *Version 2:* None.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 6 weeks (232 hours). *Version 2:* 7 weeks (272–280 hours).

Exhibit Dates: *Version 1:* 4/70–Present. *Version 2:* 9/64–3/70.

Objectives: To train enlisted personnel and officers in the field of maintenance data analysis.

Instruction: Lectures on graphic presentations, maintenance data documentations, data extraction, algebra, time series, descriptive and inferential statistics, control charts, work measurement, linear correlation, and analytical projection.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in business statistics (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business statistics (2/74); in the upper-division baccalaureate category, 3 semester hours in business statistics (2/74). *Version 2:* In the vocational certificate category, 4 semester hours in business statistics (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in business statistics (2/74); in the upper-division baccalaureate category, 4 semester hours in managerial statistics (12/68).

NV-1402-0019

AN/USQ-20 Machine Language Programming

Course Number: K-532-0002.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 5 weeks (142 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train military and civilian personnel to write, execute, and interpret computer programs at two levels: CP-642B machine code instructions; CMS-2 direct code.

Instruction: Lectures and practical exercises in arithmetic of computers; programming techniques; machine instruction for CP-642B; CMS-2 direct codes; hardware; practical programming.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (2/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (2/74).

NV-1402-0020

DD963 Basic Circuit Concepts for Gas Turbine Controls, Class C1

Course Number: A-652-0134.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (90 hours).

Exhibit Dates: 1/77–Present.

Objectives: To provide a basic understanding of analog devices and logic circuit operations for computer control systems.

Instruction: Major areas of instruction include external circuit analysis to identify analog computer systems components, interpretation of basic logic circuit diagrams in terms of Boolean expressions and Veitch diagrams, testing and troubleshooting basic logic circuits and combinations.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in computer logic (9/77).

NV-1402-0021

Basic Programming Concepts, Class C

Course Number: A-532-0012.

Location: Data Processing Technician Class C School, San Diego, CA.

Length: 3 weeks (110 hours).

Exhibit Dates: 7/71–Present.

Objectives: To train enlisted personnel in the general concepts of digital computers and flow charting.

Instruction: Lectures and practical exercises in data representation, central processing unit design, input/output, and introduction to software, flow charting, and program documentation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in digital computer concepts (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer concepts (2/74); in the upper-division baccalaureate category, 2 semester hours in digital computer concepts (3/72).

NV-1402-0022

Data Processing Technician, Class A

Course Number: *Version 1:* A-531-0016. *Version 2:* A-531-016.

Location: Service School Command, San Diego, CA; Service School Command, Bainbridge, MD.

Length: *Version 1:* 12 weeks (360 hours). *Version 2:* 12-16 weeks (360-380 hours).

Exhibit Dates: *Version 1:* 2/71-Present. *Version 2:* 1/68-1/71.

Objectives: To train enlisted personnel in the operation of electric accounting machines and AN/UYK-5(v) computers.

Instruction: Lectures and operating experience in data processing equipment, including card punch, sorter, interpreter, reproducing punch, collator, accounting machine, and digital computers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electrical laboratory (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electrical laboratory (2/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68). *Version 2:* In the vocational certificate category, 4 semester hours in unit record and computer operation (2/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in unit record and computer operation (2/74); in the upper-division baccalaureate category, 4 semester hours in unit record and computer operation (12/68).

NV-1402-0023

DD963 Naval Tactical Data System (NTDS) Data Utilization

Course Number: K-2G-0074.

Location: Fleet Combat Training Center, Pacific, San Diego, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 8/77-Present.

Objectives: To train officers and senior petty officers in the current operating procedures, capabilities, and limitations of the DD963 Naval Tactical Data System.

Instruction: Classroom lectures and laboratory exercises in NTDS equipment, user function, input functions, data links, and mock-up/chalk talk.

Credit Recommendation: No credit is recommended because of the limited specialized nature of the course (7/78).

NV-1402-0024

Central Navigation Computer (Processor II)

Course Number: A-193-0248; F-193-090.

Location: FBM Submarine Training Center, Charleston, SC.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train navigation electronics technicians to perform advanced maintenance on the CP-890 (CNC) computer.

Instruction: Lectures and practical exercises in circuitry timing considerations and logic analysis on CP-890 (CNC) computer ship evaluation, breakpoint feature, keyboard/keyset communication, monitor clock, memory lockout and executive mode features, interrupts, jumps, program faults, shift instructions, repeat, multiply, divide, square root, and floating-point instructions. Course is highly specialized; however, many of the concepts studied also apply to commercial computers.

Credit Recommendation: In the vocational certificate category, 2 semester hours in computers or computer science (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in computers or computer science (3/74); in the upper-division baccalaureate category, 2 semester hours in computers or computer science (3/74).

NV-1402-0025

Central Navigation Computer (Processor I)

Course Number: A-193-0247; F-193-089.

Location: FBM Submarine Training Center, Charleston, SC.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train navigation electronics technicians to maintain and repair central navigation computers.

Instruction: Lectures and practical exercises in functional operation and circuit analysis of computer power circuitry; functional operation and logic analysis of timing and control, main memory, and NDRO memory circuits; timing considerations and logic analysis of processor A, indirect sequences, and all read-and-store class instructions. Course is highly specialized; knowledge acquired by student is applicable only to special-purpose military computers.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1402-0026

Central Navigation Computer (Input/Output)

Course Number: A-193-0249; F-193-091.

Location: FBM Submarine Training Center, Charleston, SC.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train navigation electronics technicians to maintain CP-890/UYK central navigation computers.

Instruction: Lectures and practical exercises in functions of the CNC input/output controllers and the function of all input/output circuits; essential events and their timing relationships for all input/output operations; and logic circuits for instruction executions. Course is highly specialized; however, much of the material is applicable to commercial computers.

Credit Recommendation: In the vocational certificate category, 4 semester hours in computers or computer science (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in computers or computer science (3/74); in the upper-division baccalaureate category, 2 semester hours in computers or computer science (3/74).

NV-1402-0027

Digital Principles and Techniques (Electronics Technician, Class C1)

Course Number: A-100-0019; A-100-0021.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 5 weeks (168-200 hours).

Exhibit Dates: 7/70-Present.

Objectives: To provide enlisted personnel with training in digital computer fundamentals.

Instruction: Lectures and practical exercises in computer block diagrams; number systems; binary, octal, and hexidecimal arithmetic; Boolean algebra; logic equation simplification; digital counters and registers; input/output devices; storage devices; and Bi-Tran-Six programming.

Credit Recommendation: In the vocational certificate category, 2 semester hours in digital principles and techniques and 1 in logic laboratory (11/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital principles and techniques and 1 in logic laboratory (11/77).

NV-1402-0028

AN/UYK-5(V) (3-M System) Operator, Class C

Course Number: A-531-011.

Location: Naval Training Center, San Diego, CA.

Length: 3-6 weeks (90-180 hours).

Exhibit Dates: 12/68-Present.

Objectives: To train data processing technicians to operate AN/UYK-5(V) computer systems.

Instruction: Lectures and practical exercises in computer concepts, number systems, machine language instruction, system operation, and maintenance procedures.

Credit Recommendation: In the vocational certificate category, credit in computer operation on the basis of institutional examination (3/74); in the upper-division baccalaureate category, credit in computer operation on the basis of institutional evaluation (12/68).

NV-1402-0029

IOIC Maintenance Officer

Course Number: D-7E-010.

Location: Reconnaissance Attack Squadron Three, Albany, GA.

Length: 6 weeks (240 hours).

Exhibit Dates: 5/69-Present.

Objectives: To train warrant officers who have backgrounds in digital data systems and electronic data processing to operate and administer the Integrated Operational Intelligence Center (IOIC) and to supervise the maintenance of associated equipment.

Instruction: Lectures and practical exercises in the function, operation, and supervision of the Integrated Operational Intelligence Center, including IOIS systems cross-training, maintenance administration, basic computer concepts, software and basic EDP equipment operation, functions of data systems technicians, and fleet operational briefings.

Credit Recommendation: In the vocational certificate category, 1 semester hour in data processing (4/74); in the lower-division baccalaureate/associate degree category, credit in data processing on the basis of institutional evaluation (4/74).

NV-1402-0030

UNIVAC 1218/418/490-CP-789/UYK-5(V) System Programming Course (COBOL Language), Class C

Course Number: A-532-0014; A-7E-0014.

Location: Data Processing Technician, Class C School, San Diego, CA.
Length: 4 weeks (96 hours).
Exhibit Dates: 6/71–Present.
Objectives: To train data processing technicians in program coding concepts and techniques in COBOL for the AN/UYK-5(V) computer system.
Instruction: Lectures and practical exercises in COBOL history, basic elements, program structure and divisions, verbs, and tape programming; data descriptions; procedural verbs; table handling; special tape functions; and programming applications.
Credit Recommendation: In the vocational certificate category, 2 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 2 semester hours in computer programming (4/74).

NV-1402-0031

Programming, Naval Tactical Data System (NTDS) Operational (Officer and Enlisted)

Course Number: J-532-0375; J-7E-3752; J-532-3752.
Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.
Length: 3 weeks (105 hours).
Exhibit Dates: 10/72–Present.
Objectives: To train experienced programmers in modulator programming techniques.
Instruction: Lectures in data design, message handling, automatic sealing, coding rules and documentation, and practical exercises in data design setups, programming, debugging techniques, and module documenting.
Credit Recommendation: In the vocational certificate category, 1 semester hour in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer programming (4/74); in the upper-division baccalaureate category, 1 semester hour in computer programming (4/74).

NV-1402-0032

Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C

Course Number: Not available.
Location: Air Technical Training Center, Glynco, GA.
Length: 3 weeks (112 hours).
Exhibit Dates: 5/71–Present.
Objectives: To train officer and enlisted personnel in Naval Tactical Data System (NTDS) operations.
Instruction: Lectures and laboratories in NTDS familiarization; digital computers and programming; system equipment operation; input functions and user functions; mockup training simulation exercises in input, user, and mock warfare; and related systems and functions, including on-line and off-line programming and airborne tactical data system operation.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1402-0033

Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language)

Course Number: J-7E-3762; J-532-3762.
Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.
Length: 7 weeks (175 hours).
Exhibit Dates: 12/71–1/72.
Objectives: To train officers and enlisted personnel in digital computer programming and NTDS unit computer operational characteristics.
Instruction: Lectures and practical exercises in digital computer programming and operational characteristics, including octal and binary numbering systems, Boolean algebra, programming concepts and techniques, machine language, assembly programming, digital computer operation, external equipment communications, debugging and testing procedures, and practical programming applications.
Credit Recommendation: In the vocational certificate category, 3 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 3 semester hours in computer programming (4/74).

NV-1402-0034

1. Data Base Management—LCC Amphibious Support Information System Language—Operator
   (LCC Amphibious Support Information System Operator)
2. Amphibious Support Information System Operator

Course Number: *Version 1:* K-221-0042; K-000-0042. *Version 2:* K-221-1012.
Location: Fleet Anti Air Warfare Training Center, San Diego, CA.
Length: *Version 1:* 2 weeks (62 hours). *Version 2:* 3 weeks (88 hours).
Exhibit Dates: *Version 1:* 2/75–Present. *Version 2:* 7/72–1/75.
Objectives: To train personnel to operate and supervise display information systems.
Instruction: Lectures in amphibious support information system operation, block-diagram analysis, data base generation, message structure, QUEST language, command and control mockup demonstrations, and system control operator functions.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in data processing principles (6/77). *Version 2:* In the vocational certificate category, 1 semester hour in data processing principles (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in data processing principles (4/74); in the upper-division baccalaureate category, 1 semester hour in data processing principles (4/74).

NV-1402-0035

Storage and Retrieval DP Operator and Programmer
(IOIC Storage and Retrieval Operator/Officer Course)

Course Number: D-150-017.
Location: Naval Intelligence Processing System Training Facility, Albany, GA; Reconnaissance Attack Squadron Three, Albany, GA.
Length: 10–11 weeks (385–400 hours).
Exhibit Dates: 1/69–Present.
Objectives: To train data processing technicians in data base storage, retrieval, and manipulation, and associated equipment utilization.
Instruction: Lectures and practical exercises in computer programs and control panel wiring, electronic data processing equipment operation, electrical accounting machines, file maintenance procedures, basic intelligence and data base, CSDS operations and programming, photographic interpretation and equipment operation, NAR programs, and information retrieval and library maintenance subsystems operation.
Credit Recommendation: In the vocational certificate category, 4 semester hours in data processing principles (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in data processing principles (4/74); in the upper-division baccalaureate category, 4 semester hours in data processing principles (4/74).

NV-1402-0036

Airborne Tactical Data System Operations, Class O

Course Number: Not available.
Location: Naval Air Technical Training Center, Glynco, GA.
Length: 12–19 weeks (480–744 hours).
Exhibit Dates: 10/65–Present.
Objectives: To train officers to operate the airborne tactical data system.
Instruction: Lectures and practical exercises in the operation of the airborne tactical data system, including data link systems, aircraft systems, system sensors, operational systems, operator and team training, and airborne training.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1402-0037

Naval Tactical Data System Operations, Class O

Course Number: C-2G-2018.
Location: Naval Air Technical Training Center, Glynco, GA.
Length: *Version 1:* 4–13 weeks (160–508 hours). *Version 2:* 6 weeks (228 hours).
Exhibit Dates: *Version 1:* 3/69–Present. *Version 2:* 8/66–2/69.
Objectives: To train officers to operate the Naval Tactical Data System Shipboard Combat Information Center.
Instruction: *All Versions:* Lectures and practical exercises in the operation of the Naval Tactical Data System Shipboard Combat Information Center, including number systems, computer theory; tactics and anti-air warfare; and data system display consoles, universal introducers, auxiliary readouts, data links, system-monitoring panel, and associated equipment. *Version 2:* Includes an introduction to computer programming, integrated operations devices, computer instructions, and use of peripheral equipment.
Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific nature of the course (4/74). *Version 2:* In the vocational certificate category, 1 semester hour in computer principles (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer principles (4/74); in the upper-division baccalaureate category, 2 semester hours in computer principles (12/68).

NV-1402-0038

Basic Computer Theory
(Computer Theory, Basic)

Course Number: A-100-0032.
Location: Naval Submarine School, New London, CT.
Length: Self-paced average 2–3 weeks (60–90 hours).

Exhibit Dates: 9/72–Present.

Objectives: To present basic computer and digital concepts to individuals who have no prior knowledge in this area.

Instruction: Self-paced multimedia instruction in digital fundamentals and programming, logic gates, symbols, truth tables, Boolean algebra, Venn diagrams, and tracing of logic levels in a circuit. Electronic circuits that produce ATL, TTL, ECL, and MOS logic gates are pictured and functionally described. Number systems and flip-flop operations are presented. Registers, counters, adder/subtractor circuits are shown and their operation and use described. Computer timing concepts and data storage techniques are presented. Basic computer operation and programming concepts, including flow charting and programming a 6-bit computer in machine language, are given. Because there is no laboratory, the course is most suitable for computer science students.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer science (9/77).

NV-1402-0039

Mk 2 Mod 1 Ships Inertial Navigation System (SINS) Maintenance

Course Number: A-193-0035; F-193-019.

Location: Submarine School, Groton, CT.

Length: 19 weeks (570 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train electronics technicians to operate, monitor, evaluate, and maintain the Mk 2 Mod 1 Ship's Inertial Navigation System (SINS).

Instruction: Lectures and practical exercises in digital computer fundamentals, Verdan computer operation and maintenance, basic inertial theory, and SINS operation and maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in data processing principles (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (3/74); in the upper-division baccalaureate category, 2 semester hours in data processing principles (3/74).

NV-1402-0040

P-3C CP-901/ASQ-114 Computer Organizational Maintenance

Course Number: C-102-3578.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train avionics personnel to program and maintain P-3C CP-901/ASQ-114 digital computers.

Instruction: Lectures and practical exercises in CP-901/ASQ-114 P-3C digital computer programming and maintenance, including theory of operation and troubleshooting procedures; basic computer description and repertoire of instructions; and assembler language, including arithmetic, logical, and control commands.

Credit Recommendation: In the vocational certificate category, 2 semester hours in computer programming (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in computer programming (4/74); in the upper-division baccalaureate category, 2 semester hours in computer programming (4/74).

NV-1402-0041

Data Systems Technician (Shipboard Tactical Data Systems Officer and Senior Technician Maintenance) Class C

(Data Systems Technician (Shipboard Tactical Data Systems Senior Technician) Class C)

(Shipboard Tactical Data Systems Maintenance)

(Tactical Data Systems Maintenance Officer/Program Officer)

Course Number: A-150-0069; A-4B-0023.

Location: Schools Command, Mare Island, CA.

Length: 26 weeks (780 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train data systems technicians to test, evaluate, and maintain tactical data systems.

Instruction: Lectures and practical exercises in basic programming; Naval Tactical Data System (NTDS) computers; peripheral equipment, data link equipment, and programmed tests; operational program analysis; data processing systems; and administrative procedures, including records and reports and safety precautions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1402-0042

Tactical Data Systems Analysis

Course Number: K-2G-0008.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 3 weeks (93 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train officers and civilian personnel in applied tactical data systems concepts.

Instruction: Lectures in tactical data systems design and development; real-time introduction; combat directive systems; documentation standards; functional specifications; intercomputer communications, scheduling queues, and simulation; hardware and software; NTDS modular structures; data design; message formats, common routines, tables, library and compiling features; program execution time; and equipment routines and interrupts.

Credit Recommendation: In the vocational certificate category, 2 semester hours in data processing principles (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in data processing principles (3/74); in the upper-division baccalaureate category, 2 semester hours in data processing principles (3/74).

NV-1402-0043

CVA IOIC Storage and Retrieval Officer

Course Number: D-3A-012.

Location: Naval Intelligence Processing System Training Facility, Albany, GA.

Length: 8 weeks (280 hours).

Exhibit Dates: 9/71–Present.

Objectives: To train officers as storage and retrieval officers in the integrated operational intelligence center.

Instruction: Lectures in storage and retrieval area functions and relationship within the integrated operational intelligence center (IOIC); procedures and computer software developed for the storage, maintenance, and query of automated data files; basic data processing; intelligence data base; photographic equipment; CSDS operations and programming; and IOIC management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in data processing principles (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in data processing principles (4/74); in the upper-division baccalaureate category, 3 semester hours in data processing principles (4/74).

NV-1402-0044

RA-5C AN/ASB-12 Verdan and Digital Test Equipment Intermediate Maintenance

(A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment)

Course Number: C-111-3742.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 10 weeks (400 hours).

Exhibit Dates: 1/64–Present.

Objectives: To train enlisted personnel with previous technical training to modify, troubleshoot, and maintain the digital computer portion of the AN/ASB-12 bomb directing set.

Instruction: Lectures and practical exercises in the maintenance of the AN/ASB-12 verdan and digital test equipment, including digital techniques, numbering systems, digital logic circuits, Boolean algebra, Verdan computer, universal section, shop test equipment familiarization, general-purpose section, DDA section, Verdan inputs/outputs, digital test equipment, and Verdan testing.

Credit Recommendation: In the vocational certificate category, 8 semester hours in digital computer principles (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in digital computer principles (6/74); in the upper-division baccalaureate category, 3 semester hours in digital computer principles (12/68).

NV-1402-0045

Storekeeper, Class C (Uniform Automated Procedures for Tenders and Repair Ships)

Course Number: A-551-0050; A-551-0051; A-551-0052; A-551-0053.

Location: Storekeeper Class C School, Norfolk, VA; Storekeeper Class C School, Port Hueneme, CA; Storekeeper Class C School, San Diego, CA; Storekeeper Class C School, Newport, RI.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/71–Present.

Objectives: To train enlisted personnel to operate the Uniform U-1500 computer supply and fiscal system.

Instruction: Lectures and practical exercises in Uniform U-1500 computer supply and fiscal system operation, including tape and card files, transactions and record document identifiers, card formats, data processing, reports and returns, and returns analysis.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1402-0046

AN/UYK-7 CMS-2 (Y) Compiler Language Programming

Course Number: K-7E-0043; K-532-0043.

Location: Fleet Combat Direction Systems Training Center, San Diego, CA.

Length: 6 weeks (173 hours).

Exhibit Dates: 7/74–Present.

Objectives: To train students to write, execute, and interpret computer programs using the AN/USQ-7 CMS-2 programming language.

Instruction: Lectures, homework, and practical exercises in introduction to computers and programming; AN/UYK-7 hardware familiarization; AN/UYK-7 machine code, direct code, and the Ultra assembler language; and AN/UYK-7 CMS-2 compiler language.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in computer programming (6/75).

NV-1402-0047

SSN Central Computer Complex System Level Maintenance and Software

(Central Computer Complex Combined Maintenance and Software)

Course Number: A-150-0144.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 1/72 weeks (Present hours).

Exhibit Dates: 7-210.

Objectives: To present the systems approach to maintenance of a computer system.

Instruction: Course includes anaylsis of system programs used to operate and diagnose the computer system. (This is a combination course, consisting of A-150-0105 and A-150-0104-1 plus an additional week of laboratory work on troubleshooting and fault isolation.) Course provides familiarization training in programming and analysis necessary to maintain the Central Computer Complex utilizing data flow and overall subsystem interfacing for fault isolation at a system level.

Credit Recommendation: In the vocational certificate category, 2 semester hours in computer technology (9/77).

NV-1403-0001

Neuropsychiatric Clerical Technic

Course Number: Not available.

Location: Naval Hospital, Bethesda, MD.

Length: 16 weeks (640 hours).

Exhibit Dates: 1/63-12/68.

Objectives: To train enlisted personnel as neuropsychiatric clerical technicians.

Instruction: Lectures and practical exercises in neuropsychiatric terminology and nomenclature, special regulations, vital statistics, and consultation and clinical management.

Credit Recommendation: In the vocational certificate category, credit in medical record administration, social work, or hospital administration on the basis of institutional examination (7/74); in the lower-division baccalaureate/associate degree category, credit in medical record administration, social work or hospital administration on the basis of institutional examination (7/74); in the upper-division baccalaureate category, credit in medical record administration, social work, or hospital administration on the basis of institutional examination (7/74).

NV-1404-0001

Postal Clerk, Class A

Course Number: None.

Location: Service School Command, San Diego, CA; Service School Command, Bainbridge, MD.

Length: 3-5 weeks (90-150 hours).

Exhibit Dates: 9/62-Present.

Objectives: To provide enlisted personnel with the technical training necessary to perform duties in the Naval postal service.

Instruction: Lectures and practical exercises in typing, operation of postal procedures; and on-the-job training in the operation of the Navy post office.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1404-0002

1. **International Morse Code Operator**
2. **Intermediate Morse Code Operator, Class C**

Course Number: *All Versions:* A-580-0015. *Version 1:* A-201-0021; A-201-0022: A-580-0019.

Location: *Version 1:* Training Centers, San Diego, CA; Training Centers, Bainbridge, MD. *Version 2:* Radioman School, San Diego, CA.

Length: *Version 1:* 1-12 weeks (360 hours). *Version 2:* 1-7 weeks (280 hours).

Exhibit Dates: *Version 1:* 11/72-Present. *Version 2:* 7/69-10/72.

Objectives: To train enlisted personnel to receive and transmit international Morse code.

Instruction: *Version 1:* Lectures and practical exercises in receiving and transmitting international Morse code, radiotelegraph messages, prosign and operating signals, call signs and address groups, circuit operation, and distress communications. *Version 2:* Lectures and practical exercises in receiving and transmitting international Morse code, circuit operation, and logkeeping procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1404-0003

Communication Officer Fleet

(Communication Officer Afloat)

Course Number: A-4C-0010.

Location: Naval Education and Training Center, Newport, RI.

Length: 8-12 weeks (233-367 hours).

Exhibit Dates: 1/67-Present.

Objectives: To train commissioned officers to perform as fleet communications officers.

Instruction: Lectures and practical exercises in fleet communications. Topics include communications procedures, equipment and systems, cryptographic operations, and registered publications systems. A limited amount of instruction is given in electronics in support of the primary goal and objective of the course.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

NV-1404-0004

Communications Technician T and R Basic Preparatory, Class A

Course Number: A-230-011.

Location: Communications Training Center, Pensacola, FL.

Length: 10 weeks (350 hours).

Exhibit Dates: 9/69-Present.

Objectives: To train enlisted personnel to perform as communications operators.

Instruction: Lectures and practical exercises in the duties of communications operators. Course includes Morse code reception (13 words/minute), intensive practice on touch-typing (25 words/minute), and the principles of communication and radio equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in typing (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing (6/74).

NV-1404-0005

Communications Officer (Short Course)

Course Number: Not available.

Location: Communication Officer School, Newport, RI.

Length: 8 weeks (246 hours).

Exhibit Dates: 7/57-12/68.

Objectives: To train officers in communications procedures.

Instruction: Lectures and practical exercises in communications procedures, including message preparation, message types and formats, communications systems, electronic communications equipment, administration procedures, broadcasts, circuits, watch requirements, special communications situations and conditions, electronic warfare, cryptography and special codes, postal services, commercial communications, and security and censoring procedures in communications.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1404-0006

Naval Amphibious Communications

Course Number: H-4C-5215.

Location: Amphibious School, Coronado, CA.

Length: 2 weeks (74 hours).

Exhibit Dates: 3/72-Present.

Objectives: To provide background and knowledge in communication practices, techniques, and requirements unique to amphibious operation.

Instruction: Lectures and practical exercises in communications, administration, amphibious concepts and organization, operations order, communication equipment and systems, and security.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1404-0007

Dynalec Automatic Telephone System Maintenance, Class C1

Course Number: A-623-0047.

Location: Service School Command, Great Lakes, IL.

Length: 6 weeks (180 hours).

Exhibit Dates: 8/76-Present.

Objectives: To train telephone system technicians in the operation, adjustment, and maintenance of the 100/150 line automatic dial telephone system.

Instruction: Instruction in subsystems related to an automatic dial telephone system including automatic switchboards, crossbar switching, manual switchboard, and troubleshooting and maintenance techniques for the telephone system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone system operation (9/77).

NV-1405-0001

Ship's Servicemen Recordskeeper

Course Number: A-823-0010; A-823-0011.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/71–Present.

Objectives: To train enlisted personnel to perform as ship's store recordskeepers.

Instruction: Lectures on procurement and receipt of ship's store stock, inventory control, and records and returns.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1405-0002

Storekeeper Supply Afloat (Dependent Duty) Class C

Course Number: A-551-0069; A-551-0070.

Location: Naval Schools Command, Norfolk, VA.

Length: 5 weeks (150 hours).

Exhibit Dates: 12/71–Present.

Objectives: To train students to function as ship's storekeepers under the direction of supply corps officers.

Instruction: Lectures on supply department publications; administration of supply organization afloat; procedures for receival, storage, procurement, and inventory; records and files; and preparation of reports.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1405-0003

Shop Stores Procedures, Class C

Course Number: A-610-0012.

Location: Construction Training Center, Port Hueneme, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 11/65–Present.

Objectives: To train enlisted personnel to serve as shop storesmen of supply items needed locally by construction battalions for current repair, maintenance, or general use.

Instruction: Lectures and practical exercises in federal supply catalogs; bureau of yards and docks catalogs and material; cross-reference systems; commercial catalogs and parts lists; identification of parts and materials; and shop store organization and administration.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in supply management (7/74).

NV-1405-0004

Aviation Storekeeper, Class A

Course Number: C-551-2010.

Location: Air Technical Training Center, Memphis, TN; Air Technical Training Center, Jacksonville, FL.

Length: 10–11 weeks (384–440 hours).

Exhibit Dates: 10/57–Present.

Objectives: To train enlisted personnel to perform as entrance-level aviation storekeepers.

Instruction: Lectures and practical exercises in entrance-level aviation storekeeping, including operation of adding machines, calculators, and typewriters; finance and accounting procedures; materials handling and storage; correspondence; receipt and issue procedures; and item identification.

Credit Recommendation: In the vocational certificate category, 2 semester hours in typing, 2 in inventory supervision (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 2 in inventory supervision (6/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

NV-1405-0005

Navy Purchase

Course Number: Not available.

Location: Bureau of Supplies and Accounts, Washington, DC.

Length: 4 weeks (114 hours).

Exhibit Dates: 2/61–12/68.

Objectives: To train enlisted personnel to handle the duties of a purchaser of goods and services.

Instruction: Lectures in purchasing practices and procedures. Course includes formal advertising, negotiation, contract administration, office administration, and future trends in purchasing.

Credit Recommendation: In the vocational certificate category, 1 semester hour in purchasing (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in purchasing (6/74); in the upper-division baccalaureate category, 2 semester hours in principles of procurement (12/68).

NV-1405-0006

Line Officer Supply (LOS)

Course Number: A-8B-0013.

Location: Mine Warfare School, Charleston, SC.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/71–Present.

Objectives: To train line officers to perform as supply officers aboard minesweepers.

Instruction: Lectures and practical exercises on inventory management, financial management, and food service management, including duties of naval supply officer, organization and functions of supply department aboard minesweeper, material identification and classification, coordinated shipboard allowance list, supply operations and assistance program, military standard requisitioning and issue procedures, purchase and receipt of materials and services, and organization and administration of food services.

Credit Recommendation: In the vocational certificate category, 1 semester hour in inventory management (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in inventory management (6/74).

NV-1405-0007

Marine Aviation Supply (Mechanized), Class C

Course Number: C-551-2012.

Location: Air Technical Training Center, Memphis, TN.

Length: 4 weeks (240 hours).

Exhibit Dates: 9/71–Present.

Objectives: To train enlisted personnel in the performance of mechanized aviation supply duties.

Instruction: Lectures and practical exercises in the fundamentals of mechanized supply, including introduction to mechanized supply, documents, equipment, management, Shipboard Uniform Automated Data Processing System (SUADPS), functions of GASSC under SUADPS, systems output, DUADPS operating procedures within GASSC, group aviation supply support center in operation, and electronic accounting machine and communications equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in materials management (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in materials management (6/74).

NV-1405-0008

Marine Aviation Supply, Class C

Course Number: Not available.

Location: *Version 1:* Air Technical Training Center, Memphis, TN. *Version 2:* Air Technical Training Center, Memphis, TN. *Version 3:* Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 10 weeks (400 hours). *Version 2:* 10 weeks (384 hours). *Version 3:* 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 8/70–Present. *Version 2:* 11/65–7/70. *Version 3:* 10/57–10/65.

Objectives: To train enlisted personnel in aviation supply procedures.

Instruction: Lectures and practical exercises in aviation supply procedures, including correspondence, typing, material classification and cataloguing, technical publications, allowance lists, requisitioning, stock records and transactions, supply organization, mechanized procedures, management reports, and procurement procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in typing, 3 in property accounting (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 3 in property accounting (6/74). *Version 2:* In the vocational certificate category, 1 semester hour in typing, 3 in property accounting (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 3 in property accounting (6/74); in the upper-division baccalaureate category, credit in typing and property accounting on the basis of institutional evaluation (12/68). *Version 3:* In the vocational certificate category, 1 semester hour in typing, 2 in property accounting (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 2 in property accounting (6/74); in the upper-division baccalaureate category, credit in typing and property accounting on the basis of institutional evaluation (12/68).

NV-1405-0009

Joint Aviation Supply and Maintenance Material Management

Course Number: A-8B-0020.

Location: Supply Corps School, Athens, GA.

Length: 3 weeks (105 hours).

Exhibit Dates: 8/72–Present.

Objectives: To train commissioned officers in aviation material management.

Instruction: Lectures in supply and maintenance material management. Course includes funding, allowance listing, stock control, storage, shipping, aviation fuels management, maintenance support, supply organization, and a general review of naval aviation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in inventory management (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in inventory management (6/74); in the upper-division baccalaureate category, 1 semester hour in inventory management (6/74).

NV-1405-0010

Aviation Ordnance Officers (Management), Class O (AOM(O))

Course Number: Not available.

Location: Air Technical Training Center, Jacksonville, FL.
Length: 4 weeks (160 hours).
Exhibit Dates: 9/66–Present.
Objectives: To train limited-duty, line, and aviation ordnance officers in ordnance management.
Instruction: Lectures and practical exercises in the duties of aviation ordnance officers, including aviation ordnance management, supply, standard Navy maintenance and material management system, safety and security, procurement and control management, and maintenance data collection and processing.
Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in supply management (12/68).

NV-1405-0011

Supply Ashore Refresher

Course Number: A-8B-0025.
Location: Naval Supply Center, Oakland, CA.
Length: 2 weeks (64 hours).
Exhibit Dates: 7/71–Present.
Objectives: To train reserve officers to operate and manage supply activities ashore.
Instruction: Lectures and practical exercises in the operation and management of supply activities ashore. Course includes supply ashore operations and management, supply procurement, inventory control and warehousing, financial management, and distribution management within the military system.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1405-0013

1. Storekeepers (Repair Parts), Class C
2. Storekeepers (Repair Parts), Class C

(Supply Storekeepers (Repair Parts), Class C-1)

Course Number: Not available.
Location: Storekeepers Class C School, Newport, RI.
Length: *Version 1:* 3 weeks (90 hours). *Version 2:* 5 weeks (150 hours).
Exhibit Dates: *Version 1:* 12/66–12/68. *Version 2:* 8/60–11/66.
Objectives: To train enlisted personnel to be storekeepers.
Instruction: Lectures and practical exercises in storekeeping, including appropriations, accounting, supplies procurement, storage inventory control, ordnance supply system, yards and docks supply system, electronic supply system, and introduction to ships machinery and repair parts supply system.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (7/74). *Version 2:* In the vocational certificate category, 3 semester hours in supply management (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in supply management (7/74).

NV-1405-0014

Basic Qualification Course of the Supply Corps

Course Number: A-8B-0012.
Location: Supply Corps School, Athens, GA.
Length: *Version 1:* 24–28 weeks (1,032–1,204 hours). *Version 2:* 26 weeks (650 hours). *Version 3:* 26 weeks (650–780 hours).
Exhibit Dates: *Version 1:* 10/72–12/74. *Version 2:* 8/67–9/72. *Version 3:* 6/57–7/67.
Objectives: To qualify officers to assume the duties normally associated with supply and disbursing in the U.S. Navy.
Instruction: Course covers supply management, personnel management, food service operations, retail operations, disbursing afloat, and computer operations.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in supply management and 1 in personnel administration (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in supply management and 1 in personnel administration (7/74); in the upper-division baccalaureate category, 3 semester hours in supply management and 1 in personnel administration (7/74). *Version 2:* In the vocational certificate category, 3 semester hours in supply management and 1 in personnel administration (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in supply management and 1 in personnel administration (7/74); in the upper-division baccalaureate category, 4 semester hours in supply management and 2 in personnel administration (12/68). *Version 3:* In the vocational certificate category, 3 semester hours in supply management and 1 in personnel administration (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in supply management and 1 in personnel administration (7/74); in the upper-division baccalaureate category, 4 semester hours in supply management and 3 in personnel administration (12/68).

NV-1405-0015

Basic Qualification Course of the Supply Corps

Course Number: A-8B-0012.
Location: Supply Corps School, Athens, GA.
Length: 14–16 weeks (400–560 hours).
Exhibit Dates: 6/57–12/74.
Objectives: To train selected officers to assume the duties normally associated with supply and disbursing officers in the U.S. Navy.
Instruction: Course covers supply management, personnel administration, food service, retail operations, disbursing afloat, and computer operations.
Credit Recommendation: In the vocational certificate category, 3 semester hours in supply management and 1 in personnel administration (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in supply management and 1 in personnel administration (7/74); in the upper-division baccalaureate category, 3 semester hours in supply management and 2 in personnel administration (12/68).

NV-1405-0016

Basic Qualification Course of the Supply Corps

Course Number: A-8B-0012.
Location: Supply Corps School, Athens, GA.
Length: 10 weeks (350 hours).
Exhibit Dates: 8/67–12/74.
Objectives: To prepare newly commissioned women officers to assume supply and disbursing duties during a period of mobilization.
Instruction: Lectures and practical exercises in supply management, personnel administration, food service, retail operations, disbursing afloat, and computer operations.
Credit Recommendation: In the vocational certificate category, 2 semester hours in supply management and credit in personnel administration on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in supply management and credit in personnel administration on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 2 semester hours in supply management and credit in personnel administration on the basis of institutional evaluation (12/68).

NV-1405-0017

Storekeeper Supply Afloat (Independent Duty), Class C

(Storekeepers (Independent Duty), Class C)

Course Number: A-551-0010; A-551-0011.
Location: School Command, Norfolk, VA; School Command, Newport, RI; School Command, San Diego, CA.
Length: 5 weeks (150 hours).
Exhibit Dates: 4/64–Present.
Objectives: To train selected enlisted personnel as storekeepers aboard ship.
Instruction: Training in the use of technical and administrative publications, catalogs, and allowance lists; acquisition, control, and issue of stores; financial accounting; stores storage and security; requirements determination; stores management organization; pricing and profit policies; inventory procedures; food service sales, controls, and records.
Credit Recommendation: In the vocational certificate category, 2 semester hours in supply management (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in supply management (8/74).

NV-1405-0018

Carrier Gasoline and Inert Gas Systems, Class C

Course Number: Not available.
Location: Air Material Center, Philadelphia, PA.
Length: 6 weeks (240 hours).
Exhibit Dates: 9/56–12/68.
Objectives: To train personnel in the operation and maintenance of carrier gasoline and inert gas systems.
Instruction: Lectures and practical exercises in carrier gasoline system operation and maintenance; carrier inert gas system operation and maintenance; and high capacity aviation fuel system operation and maintenance. Course covers: receiving and dispensing bulk quantities of liquid and gaseous materials; measuring liquid flow; and operating principles of inert gas storage systems.
Credit Recommendation: In the vocational certificate category, 1 semester hour in materials handling (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in materials handling (7/74); in the upper-division baccalaureate category, 1 semester hour in materials handling (7/74).

NV-1406-0001

Instructor Training, Class C
(Instructor Training School Class C)

Course Number: C-012-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: 4-5 weeks (160-200 hours).

Exhibit Dates: 8/57-Present.

Objectives: To train military personnel in the basic principles of teaching to qualify them as instructors.

Instruction: Lectures and practical experience in the basic principles of teaching, including lesson planning, teaching situations and methods, training aids, testing and grading, and supervised practice teaching.

Credit Recommendation: In the vocational certificate category, 4 semester hours in instructional methods (1/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in instructional methods (1/74); in the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

NV-1406-0002

Tradevman I (Instructor) Class A

Course Number: None.

Location: Air Technical Training Center, Memphis, TN.

Length: 14 weeks (560 hours).

Exhibit Dates: 1/54-7/65.

Objectives: To train enlisted personnel to teach basic physics and electricity.

Instruction: Lectures and practical experience in the fundamentals of physics and electricity, special electrical devices, basic equipment, operational procedures for instrument flight, basic teaching principles, and supervised practice teaching.

Credit Recommendation: In the vocational certificate category, 3 semester hours in instructional methods, 3 in physical sciences, 3 in aviation (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in instructional methods, 3 in physical sciences, 3 in aviation (1/74); in the upper-division baccalaureate category, 2 semester hours in instructional methods, and credit in electricity on the basis of institutional evaluation (12/68).

NV-1406-0003

Academic Instructor Training

Course Number: Q-2A-0065.

Location: Naval Aviation Schools Command, Pensacola, FL.

Length: 4 weeks (159-163 hours).

Exhibit Dates: 8/64-10/69.

Objectives: To prepare officers to be academic instructors of aviation training.

Instruction: Lectures in educational principles and methods, tests and measurements, leadership training, communication skills, and programmed instruction.

Credit Recommendation: In the vocational certificate category, 2 semester hours in instructional methods (1/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in instructional methods (1/74); in the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

NV-1406-0004

1. Instructor, Class C (Career Information and Counseling)
2. Personnelman, Class C (Career Information and Counseling)

Course Number: A-500-011; A-500-012.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 6/70-Present. *Version 2:* 3/56-5/70.

Objectives: To train petty officers to perform as career counselors.

Instruction: Lectures in Navy career opportunities and benefits, civilian career opportunities, interviewing and counseling techniques, administrative procedures, human relations, and public speaking.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in counseling and personnel classification (1/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in counseling and personnel classification (1/74); in the upper-division baccalaureate category, 2 semester hours in counseling and personnel classification (1/74). *Version 2:* In the vocational certificate category, 2 semester hours in counseling and personnel classification (1/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in counseling and personnel classification (1/74); in the upper-division baccalaureate category, 3 semester hours in personnel classification (12/68).

NV-1406-0005

Instructional Programmers (Class C)

Course Number: C-570-2010.

Location: Naval Air Technical Training Center, Millington, Memphis, TN.

Length: 3 weeks (104 hours).

Exhibit Dates: 4/67-12/68.

Objectives: To provide enlisted personnel with a working knowledge of the basic principles of program writing.

Instruction: Lectures and laboratory experiences in basic principles of programming, learning objectives, the programmed instructional process, editing, and supervised program writing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in programmed instruction techniques (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in programmed instruction techniques (1/74); in the upper-division baccalaureate category, 3 semester hours in programmed instruction techniques (12/68).

NV-1406-0006

Programmed Instruction Writer
(Programmed Instruction Techniques)

Course Number: A-012-0036; A-570-0014; A-570-0015; A-570-0016.

Location: Naval Training School, Great Lakes, IL; Naval Training School, San Diego, CA; Naval Training School, Norfolk, VA.

Length: 3 weeks (90-120 hours).

Exhibit Dates: 11/63-Present.

Objectives: To train military and civilian personnel in the development and use of programmed instructional materials.

Instruction: Lectures in basic principles of programmed instruction, task analysis, developing and writing training objectives, writing linear programs, and reviewing and editing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in programmed instruction techniques (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in programmed instruction techniques (1/74); in the upper-division baccalaureate category, 3 semester hours in programmed instruction techniques (12/68).

NV-1406-0007

Television Instructors

Course Number: A-012-0025.

Location: Naval School, Washington, DC.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/65-Present.

Objectives: To train instructors in the basic principles of television teaching.

Instruction: Lectures in application and contribution of closed-circuit television, television systems and characteristics, equipment and technical personnel requirements, methods and techniques of television teaching, and preparation and demonstration of practice television lessons.

Credit Recommendation: In the vocational certificate category, 2 semester hours in television instruction (1/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in television instruction (1/74); in the upper-division baccalaureate category, 2 semester hours in television instruction (12/68).

NV-1406-0008

Instructor Basic
(Instructor, Class 1, Course 'Alfa')

Course Number: *Version 1:* A-012-0011; A-012-0012; A-012-0013. *Version 2:* None.

Location: Instructor Training School, Newport, RI; Instructor Training School, Great Lakes, IL; Instructor Training School, Memphis, TN, Instructor Training School, San Diego, CA; Instructor Training School, New London, CT; Instructor Training School, Norfolk, VA.

Length: *Version 1:* 3-5 weeks (100-150 hours). *Version 2:* 4 weeks (120 hours).

Exhibit Dates: *Version 1:* 1/69-Present. *Version 2:* 1/54-12/68.

Objectives: To train enlisted personnel as instructors.

Instruction: Lectures in counseling, methods and techniques of instruction, training aids, lesson planning, test construction, evaluation of students, and practice teaching under simulated conditions.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in instructional methods (1/74). *Version 2:* In the vocational certificate category, 4 semester hours in instructional methods (1/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in instructional methods (1/74); in the upper-division baccalaureate category, 2 semester hours in instructional methods (12/68).

NV-1406-0010

Recruit Procurement, Class C

Course Number: A-501-0010; A-501-0011; A-000-026; A-000-027.

Location: Personnel Men, Class C School, Bainbridge, MD; Personnel Men, Class C School, San Diego, CA.

Length: *Version 1:* 7 weeks (210 hours). *Version 2:* 6 weeks (175 hours). *Version 3:* 6 weeks (175 hours).

Exhibit Dates: *Version 1:* 6/66-Present. *Version 2:* 10/63-5/66. *Version 3:* 5/54-9/63.

Objectives: To train selected noncommissioned officers for assignment to general recruiting duty.

Instruction: Lectures in administrative procedures; recruiting directives, techniques, methods, and approaches; interviewing and public speaking; fundamentals of typewriting; and techniques of fingerprinting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in public speaking and additional credit in typing on the basis of institutional evaluation (6/75). *Version 2:* In the vocational certificate category, 2 semester hours in typing (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 2 in communication skills, 2 in personnel procurement (2/74); in the upper-division baccalaureate category, credit in oral and written communication on the basis of institutional evaluation (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in public speaking, 2 in personnel procurement (2/74); in the upper-division baccalaureate category, credit in oral and written communication on the basis of institutional evaluation (12/68).

NV-1406-0011

Supervision and Management, Class C

Course Number: C-012-2011.

Location: Air Technical Training Center, Memphis, TN.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/67–12/73.

Objectives: To provide training supervisors with basic instruction in the principles and techniques of supervision and in the methods used to improve and evaluate training and instruction.

Instruction: Lectures in the basic principles and techniques of supervision and in basic instruction-evaluation methods, including a survey of learning processes, programmed instruction, conference leadership, fundamentals of instructional supervision, management functions, and observation and counseling of trainees.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in training or supervision (2/74); in the upper-division baccalaureate category, 1 semester hour in training or supervision (2/74).

NV-1406-0012

1. Management Engineering
2. Work Study Analyst
   (Fleet Work Study)

Course Number: S-500-0029; A-500-029; A-7C-015.

Location: Manpower and Material Analysis Center, Atlantic, Norfolk, VA.

Length: *Version 1:* 8 weeks (256 hours). *Version 2:* 6 weeks (173 hours).

Exhibit Dates: *Version 1:* 3/73–Present. *Version 2:* 1/70–2/73.

Objectives: To train officer, enlisted, and civilian personnel in method study and work measurement.

Instruction: Lectures and practical exercises on method study and work measurement, including introduction to work and method study; process charting; introduction to the critical examination sheet, pert and network scheduling, operational sequence diagrams, and work measurement; time study; rating; activity sampling; synthesis data and analytical estimating; multiple-activity charting; and methods-time measurement.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in work study analysis (6/75). *Version 2:* In the vocational certificate category, 3 semester hours in work study analysis (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in work study analysis (6/74); in the upper-division baccalaureate category, 3 semester hours in work study analysis (6/74).

NV-1406-0015

Personnel Men School, Class C-1,
Enlisted Classification

Course Number: Not available.

Location: Personnelman Class C School, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/56–12/68.

Objectives: To train enlisted personnel to be personnel administrators.

Instruction: Lectures and practical exercises in personnel administration, including naval classification system, interviewing principles, testing and evaluating work experiences, communications, naval occupational analysis, and organizational planning and work simplification.

Credit Recommendation: In the vocational certificate category, 3 semester hours in personnel administration (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in personnel administration (7/74); in the upper-division baccalaureate category, 3 semester hours in personnel administration (12/68).

NV-1406-0018

1. Interviewing and Classification
2. Personnelman, Class C-1,
   Interviewing and Classification

Course Number: A-500-0013.

Location: Personnelman Class C School, San Diego, CA.

Length: *Version 1:* 8 weeks (240 hours). *Version 2:* 8–10 weeks (240 hours).

Exhibit Dates: *Version 1:* 4/67–Present. *Version 2:* 5/54–3/67.

Objectives: To provide enlisted naval personnel with the technical knowledge required to perform duties as job classifiers and interviewers.

Instruction: Course covers vocational counseling and testing, survey of occupational titles, recording work experience, public speaking, and interviewing techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in job evaluation (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in job evaluation (7/74). *Version 2:* In the vocational certificate category, 3 semester hours in job evaluation (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in job evaluation (7/74); in the upper-division baccalaureate category, 3 semester hours in personnel classification (12/68).

NV-1407-0001

Yeoman School, Class B
(Class B Yeoman School)

Course Number: None.

Location: Service Schools Command, Bainbridge, MD; Service Schools Command, San Diego, CA.

Length: 13–14 weeks (390–420 hours).

Exhibit Dates: 9/56–12/68.

Objectives: To train enlisted personnel to meet the professional qualifications for advancement to yeoman first class and chief yeoman.

Instruction: Practical exercises in typing, shorthand, personnel accounting, and secretarial practice.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing, 6 in shorthand (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 6 in shorthand (3/74).

NV-1407-0002

Legal Clerk and Court Reporting

Course Number: A-512-010.

Location: Naval Justice School, Newport, RI.

Length: 5–7 weeks (170–239 hours).

Exhibit Dates: 1/69–Present.

Objectives: To provide enlisted personnel with training in court reporting and legal clerkship.

Instruction: Practical experience in military justice documentation and recording, closed-microphone court reporting, and transcription.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1407-0003

Stenography, Class C

Course Number: Not available.

Location: Yeoman Class C School, Bainbridge, MD.

Length: 6 weeks (210 hours).

Exhibit Dates: 1/61–12/68.

Objectives: To train petty officers in high-speed shorthand and touch-typing.

Instruction: Lectures and practical exercises in stenography and typewriting, including vocabulary and speed exercises in Gregg shorthand, high-speed dictation, oral and written transcription, oral reporting equipment, mechanics of English, and typing.

Credit Recommendation: In the vocational certificate category, 6 semester hours in stenography and typing (7/74); in the upper-division baccalaureate category, credit in stenography and typing on the basis of institutional examination (12/68).

NV-1408-0001

Disbursing Clerk Financial Returns
Class C
(Disbursing Clerk, Class C (Financial Returns)

Course Number: A-542-0014.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/71–Present.

Objectives: To train rated and nonrated disbursing clerks to prepare Navy and DoD reports and financial returns.

Instruction: Lectures and practical exercises in the preparation of collection and disbursement vouchers; reports of disbursement and collections; foreign currency reports; and deposit schedules.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (2/74).

NV-1408-0002

Disbursing Clerk, Class C (Travel
Payments)

Course Number: A-542-0013.

Location: Naval Schools Command, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/71–Present.

Objectives: To train disbursing clerks to master the intricacies of the Navy travel payment procedures.

Instruction: Lectures on travel regulations, orders, and vouchers; travel advance and allowance; dependent travel entitlement; and dislocation allowance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

NV-1408-0003

Defense Management Systems

Course Number: P-00-3306.

Location: Naval Postgraduate School, Monterey, CA.

Length: 4 weeks (105 hours).

Exhibit Dates: 1/70–Present.

Objectives: To provide officers with an introduction to the basic principles of management.

Instruction: Lectures in resource management, program budgeting, management accounting, systems analysis, marginal analysis, and cost effectiveness; emphasis placed on the analytical aspects of management, including requirement studies, systems analyses, cost effectiveness, and marginal analysis.

Credit Recommendation: In the vocational certificate category, 3 semester hours in management (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in management (2/74); in the upper-division baccalaureate category, 3 semester hours in management (12/68).

NV-1408-0004

Station Management Systems

Course Number: None.

Location: Naval Postgraduate School, Monterey, CA.

Length: 4 weeks (84 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train naval officers in the principles and methods of shore station management.

Instruction: Lectures in general management theory, quantitative reasoning, statistics, economics, systems analysis and cost analysis, and resources management systems implementation and operation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in principles of management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in principles of management (2/74); in the upper-division baccalaureate category, 2 semester hours in principles of management (12/68).

NV-1408-0005

Data Analysis (Ship's 3-M System) Class C

Course Number: A-500-0017.

Location: Naval Schools Command, Norfolk, VA.

Length: 5 weeks (173 hours).

Exhibit Dates: 2/72–Present.

Objectives: To train officers and petty officers to perform statistical analysis of machine generated data and to present their findings in a report designed to facilitate management decision making.

Instruction: Lectures in statistical analysis and its application to management organizations, including frequency, probability, and sampling distributions; hypothesis testing; dispersion; trend analysis; and linear correlation and regression.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory statistics (2/74); in the upper-division baccalaureate category, 3 semester hours in introductory statistics (2/74).

NV-1408-0006

Group VIII E8/E9 Advanced Management
(Group VIII E-6/E-7 Management)

Course Number: A-710-0016; A-710-0021.

Location: Civil Engineer Corps Officers School, Port Hueneme, CA.

Length: 6 weeks (167 hours).

Exhibit Dates: 5/72–Present.

Objectives: To provide enlisted personnel with advanced training in naval engineering management and administration.

Instruction: Lectures on public works management principles, including facilities, utilities, personnel and housing; construction and labor/management relations; planning, scheduling and networking; military budgeting activities; and field exercises in construction project planning.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in construction management or technology (3/76).

NV-1408-0007

Management and Supervision of Naval Personnel

Course Number: K-012-2068; A-012-0028; A-012-0029; A-012-0030; C-012-2012.

Location: Fleet Training Group, Pearl Harbor, HI; Fleet Training Center, Norfolk, VA; Service School Command, Great Lakes, IL; Service School Command, San Diego, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 3/72–Present.

Objectives: To provide petty officers and junior officers with a knowledge of modern management methods.

Instruction: Lectures on management of communications processes, motivation and human behavior, personnel management, and leadership.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in principles of supervision or management (6/75).

NV-1408-0008

Instructor, Class C-1 Administration and Counseling

Course Number: A-7C-013; A-7C-014.

Location: Instructor Class C-1 School, Norfolk, VA; Instructor Class C-1 School, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/71–Present.

Objectives: To train officers to manage shipboard operations.

Instruction: Lectures in human relations, counseling techniques, personnel management, personal financial management, drug abuse counseling, and responsibilities of division management personnel.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personnel administration (2/74); in the upper-division baccalaureate category, 1 semester hour in personnel administration (2/74).

NV-1408-0009

Construction Contract Administration and Management
(Contract Administration—Accelerated)

Course Number: A-4A-0032.

Location: Civil Engineer Corps Officers' School, Port Hueneme, CA.

Length: 2 weeks (66 hours).

Exhibit Dates: 2/74–Present.

Objectives: To prepare officers to perform as assistant resident officer in charge or independent officer in charge of construction or for staff officer positions in contract administration in the engineering field division of Naval facilities.

Instruction: Subjects emphasize the formation and daily administration of typical construction contracts. Topics include Naval facilities contract organization, pertinent laws and regulations, plans and specifications, the construction industry, contract types, formal advertising/competitive bidding and negotiated procurement; government/contractor relations, contractor quality control, correspondence preparation, contract general clauses, payment, changes, government estimate preparation, and negotiation techniques. Methods of instruction include lectures, workshops, seminars, case study discussions, and student role playing.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in contract administration (7/78).

NV-1408-0011

Warrant Officer Indoctrination
(Surface Warrant Officer Indoctrination)

Course Number: A-00-0047.

Location: Officer Indoctrination School, Newport, RI.

Length: 5–7 weeks (163–245 hours).

Exhibit Dates: 2/72–12/73.

Objectives: To instruct the newly appointed, surface-designated warrant officer in the responsibilities of his role as an officer.

Instruction: Lectures and practical exercises in the duties of a surface-designated warrant officer, including military law, management unit objectives, orientation and indoctrination, tactical objectives, technological objectives, management by objective, division organization, aids to navigation, and BUTTERCUP drill.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in administration or management (5/74); in the upper-division baccalaureate category, 2 semester hours in administration or management (5/74).

NV-1408-0012

Engineering Aid, Class C, Planning and Estimating
(EA"C" Planning and Estimating)
(Planning and Estimating Construction Group Ratings, Class C)

Course Number: A-412-0012.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: 8 weeks (240–243 hours).

Exhibit Dates: 10/64–Present.

Objectives: To train petty officers to plan and estimate construction projects.

Instruction: Lectures and practical exercises in mathematics, blueprint reading, specifications, resource publications, drafting, estimating procedures, estimating various trades, material procurement, and project planning and scheduling.

Credit Recommendation: In the vocational certificate category, 8 semester hours in planning and estimating construction projects (7/76); in the lower-division baccalaureate/associate degree category, 4 semester hours in planning and estimating construction projects (7/76); in the upper-division baccalaureate category, 3 semester hours in planning and estimating construction projects (7/76).

NV-1408-0013

Civil Engineer Corps Officer Basic—Contract Administration Specialty

Course Number: *All Versions:* A-4A-0010; A-4A-0012. *Version 2:* A-4A-010.

Location: Civil Engineer Corps Officer's School, Port Hueneme, CA.

Length: *Version 1:* 8 weeks (250 hours). *Version 2:* 7-9 weeks (238-270 hours).

Exhibit Dates: *Version 1:* 7/75-Present. *Version 2:* 6/61-6/75.

Objectives: To train officers to perform contract administration duties in the Civil Engineer Corps.

Instruction: *Version 1:* Lectures in Naval financial management, budgeting, fund control, financing for public works activities, facilities management, public works administration, labor relations, disaster control, principles of management, project planning, scheduling, and resource planning. Also included are lectures and workshops in contracts administration including procedures, documents, field administration and construction management. *Version 2:* Lectures in contract administration, including fundamentals of finance management, principles of budgeting, fund control, financing for activity public works, facilities management, finance problems, public works administration, transportation management, introduction to contracts and labor, contract procedure and labor law enforcement, disaster control engineering, and contract specifications and field administration.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in principles of management, administration, and organization, and 3 in contract administration or construction management (3/76). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in business organization and management, 2 in contract administration (5/74); in the upper-division baccalaureate category, 4 semester hours in business organization and management, 2 in contract administration (12/68).

NV-1408-0014

Civil Engineer Corps Officer Basic—Public Works Management Specialty

Course Number: *All Versions:* A-4A-0010; A-4A-0011. *Version 2:* A-4A-010.

Location: Civil Engineer Corps Officer's School, Port Hueneme, CA.

Length: *Version 1:* 8 weeks (250 hours). *Version 2:* 8-9 weeks (245-270 hours).

Exhibit Dates: *Version 1:* 7/75-Present. *Version 2:* 6/61-6/75.

Objectives: To train officers to perform public works management duties in the Civil Engineer Corps.

Instruction: *Version 1:* Lectures in Naval financial management, budgeting, fund control, financing for public works activities, facilities management, public work administration, labor relations, disaster control, principles of management, project planning, scheduling, and resource planning. Also included are lectures and workshops in facilities management, including financial, maintenance, and equipment management, utilities and energy management, housing, and special topics including an extensive simulation exercise. *Version 2:* Lectures in public works management, including fundamentals of financial management, principles of budgeting, financing for activity public works, fund control, facilities management, and finance problems; maintenance, utilities, and transportation management; and introduction to contract and labor, contract procedures, specifications, and administration, engineering management, and industrial relations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in principles of management, administration, and organization, and 3 in public works administration or facilities management (3/76). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in business organization and management, 2 in public works engineering (5/74); in the upper-division baccalaureate category, 4 semester hours in business organization and management, 2 in public works engineering (12/68).

NV-1408-0015

Civil Engineer Corps Officer Basic—Naval Construction Battalion Operations Specialty

Course Number: *All Versions:* A-4A-0010; A-4A-0013. *Version 2:* A-4A-010.

Location: Civil Engineer Corps Officer's School, Port Hueneme, CA.

Length: *Version 1:* 8 weeks (250 hours). *Version 2:* 8-11 weeks (233-394 hours).

Exhibit Dates: *Version 1:* 7/75-Present. *Version 2:* 6/61-6/75.

Objectives: To train officers to perform construction administration duties in the Civil Engineer Corps.

Instruction: *Version 1:* Lectures in Naval financial management, budgeting, fund control, financing for public works activities, facilities management, public works administration, labor relations, disaster control, principles of management, project planning, scheduling, and resource planning. Also included are lectures and workshops in planning, directing, and controlling construction activities, including concern for labor, materials, equipment, scheduling, and materials control, with emphasis on leadership. *Version 2:* Lectures in construction administration, including fundamentals of financial management, principles of budgeting, financing for activity public works, control of funds, facilities management, finance problems, construction battalion development and organization, and mobile construction battalion administration, personnel, operations and logistics, and engineering management.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 2 semester hours in principles of management, administration, and organization, and 3 in construction project management (3/76). *Version 2:* In the lower-division baccalaureate/associate degree category, 4 semester hours in business organization and management, 2 in construction engineering (5/74); in the upper-division baccalaureate category, 4 semester hours in business organization and management, 2 in construction engineering (12/68).

NV-1408-0016

Personnelman, Class C, Naval Management Analysis

Course Number: Not available.

Location: Personnelman, Class C School, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 7/65-12/68.

Objectives: To train personnel in naval management analysis.

Instruction: Lectures and practical exercises in the technical elements of recruiting, classification and interviewing, enlisted classification, management analysis, and career information and counseling, including introduction to manpower utilization, naval occupational analysis, work simplification and improvement, management/manpower survey methods, navy shipboard manpower surveys, reports and written communication, and source data automation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in management and manpower analysis (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in management and manpower analysis (6/74); in the upper-division baccalaureate category, 2 semester hours in management and manpower analysis (12/68).

NV-1408-0017

Shore Facilities Planning

Course Number: A-4A-0017.

Location: Naval Construction Battalion Center, Port Hueneme, CA.

Length: 2 weeks (63 hours).

Exhibit Dates: 2/64-12/68.

Objectives: To train personnel in shore facilities planning and administration.

Instruction: Lectures and practical exercises in shore facilities planning and administration, including environmental enhancement, financing facilities projects, military construction program, capital resources management, influence of nuclear weapons on facilities planning and design, organization, planning and operations, planning considerations and criteria, and applications.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1408-0018

Methods Engineering

Course Number: None.

Location: Bureau of Supplies and Accounts, Washington, DC.

Length: 7 weeks (280 hours).

Exhibit Dates: 8/59-12/68.

Objectives: To provide officers and civilian personnel with training in modern industrial engineering techniques.

Instruction: Lectures and practical exercises in process charting, motion study, operational analysis, layout study, methods-time measurement, work sampling, and engineered time standards.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in methods engineering (2/74).

NV-1408-0019

Aviation Storekeeper, Class B

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 10 weeks (400 hours).

Exhibit Dates: 9/71-Present.

Objectives: To train enlisted personnel to be aviation storekeepers.

Instruction: Lectures and practical exercises in supervision fundamentals, personnel administration, procurement office administration, correspondence and filing, automatic data processing, inventory management, aviation accounting and finance, and aviation maintenance.

Credit Recommendation: In the vocational certificate category, 4 semester hours in office administration (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in office administration (7/74); in the upper-division baccalaureate category, 3 semester hours in office administration (7/74).

NV-1408-0020

Chaplain School Advanced

Course Number: A-5G-0011.
Location: Naval Education and Training Center, Newport, RI.
Length: 37–39 weeks (859–1246 hours).
Exhibit Dates: 4/72–Present.
Objectives: To train senior chaplains to perform supervisory and managerial roles.
Instruction: Lectures and practical exercises in the supervisory and managerial responsibilities of chaplains in the armed services. Course includes managerial behavior, organizational behavior, styles of management, supervisory skills, organizational analysis, current theological trends, oral communication, religious education, pastoral counseling, and contemporary ministry.
Credit Recommendation: In the upper-division baccalaureate category, 15 semester hours in managerial behavior, 10 in organizational behavior, 2 in speech communication, 16 in theology (8/74).

NV-1408-0021

Medical Administrative Technician, Class C
(Medical Administrative Technician (Dental), Class C)
(Medical Administrative Technic)
(Medical Administrative Technic, Dental)

Course Number: B-513-0010; B-513-0011; B-513-0012; B-513-0013.
Location: Hospital Corps School, San Diego, CA; Naval Hospital, Portsmouth, VA.
Length: 30–42 weeks (1,125–1,319 hours).
Exhibit Dates: 6/55–12/71.
Objectives: To train personnel to prepare, maintain, and account for medical supplies, equipment, and staff and patient personnel records.
Instruction: Lectures and practical exercises in personnel management, leadership, clerical procedures, food service, business English composition, effective speaking, office management, accounting principles, and material management.
Credit Recommendation: In the vocational certificate category, 3 semester hours in personnel management, 3 in typing, 3 in business English, 3 in speech, 3 in office management, and 3 in principles of accounting (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management, 3 in typing, 3 in business English, 3 in office management, 3 in speech, and 3 in principles of accounting (7/74); in the upper-division baccalaureate category, 15 semester hours in institutional management, and credit in typing, speech, and instructional methods on the basis of institutional evaluation (12/68).

NV-1408-0022

Basic Submarine Officer
(Submarine Officer Basic)

Course Number: F-00-014; A-2E-0028.
Location: Submarine School, Groton, CT.
Length: 24 weeks (936–938 hours).
Exhibit Dates: 1/66–Present.
Objectives: To qualify selected officers and enlisted personnel for the designation, "Qualified in Submarines."
Instruction: Lectures and practical exercises to teach the student the duties and responsibilities of an officer of the deck of a submarine; the principles and procedures of submerged ship control so that he will be able to perform as a diving officer; navigation; submarine damage control; principles of submarine design, construction, and operation; weapons; fire control maintenance; FBM weapon systems; submarine tactics; and engineering.
Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in management (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in management (8/74); in the upper-division baccalaureate category, 2 semester hours in naval engineering and 2 in engineering management (12/68).

NV-1408-0023

Navy Exchange Management

Course Number: A-8F-010.
Location: U.S. Navy Ship's Store Office, Brooklyn, NY.
Length: 6 weeks (100 hours).
Exhibit Dates: 1/69–Present.
Objectives: To train officers in the management of Navy exchanges.
Instruction: Lectures and practical exercises in principles of personnel, retailing and services management, retail display, accounting, and financial methods.
Credit Recommendation: In the vocational certificate category, 2 semester hours in business management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in business management (2/74); in the upper-division baccalaureate category, 2 semester hours in business management (2/74).

NV-1409-0001

Personnelman, Class A

Course Number: A-500-0014; A-500-0015; A-500-0026.
Location: Service School Command, Bainbridge, MD; Service School Command, San Diego, CA; Naval Training Center, Orlando, FL; Naval Training Center, Meridian, MS.
Length: *Version 1:* Self-paced 6–8 weeks (240–320 hours). *Version 2:* 10 weeks (400 hours).
Exhibit Dates: *Version 1:* 8/69–Present. *Version 2:* 10/55–7/69.
Objectives: To train enlisted personnel as personnel strikers.
Instruction: *All Versions:* Lectures and practical exercises in correspondence, typing, filing, manpower utilization and personnel testing. *Version 1:* Instruction is self-paced beginning 1975. Typing instruction is provided only for students who enter the course as nonqualified typists. Emphasis is on manual records and forms.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in typing for students entering the course as nonqualified typists (3/74). *Version 2:* In the vocational certificate category, 2 semester hours in typing (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in personnel administration (3/74).

NV-1409-0002

Yeoman, Class A

Course Number: A-510-0012.
Location: Naval School, Bainbridge, MD; Naval School, Meridian, MS; Naval School, San Diego, CA; Naval School, Orlando, FL.
Length: *Version 1:* Self-paced 6–8 weeks (180–240 hours). *Version 2:* 5–8 weeks (150–240 hours).
Exhibit Dates: *Version 1:* 8/69–Present. *Version 2:* 7/56–7/69.
Objectives: To train enlisted personnel to perform as yeomen.
Instruction: *All Versions:* Lectures and practical exercises in the duties of a yeoman striker, including fundamentals of typewriting, advanced typewriting, office etiquette and efficiency, publications, classified material, filing, correspondance, personnel accounting, officer records, captain's office, executive officer's office, enlisted service record, shipboard department offices and associated records, and legal records and procedures. *Version 1:* Instruction is self-paced beginning 1975. Instruction in typing is provided for students who enter the course as nonqualified typists. Emphasis is on manual records and forms.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in typing for students entering course as nonqualified typists (6/74). *Version 2:* In the vocational certificate category, For graduates of the 8-week course, 2 semester hours in typing (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in office administration (6/74).

NV-1409-0003

Aviation Maintenance Administrationman, Class A
(Aviation Maintenance Administration, Class A)

Course Number: C-516-2010.
Location: Air Technical Training Center, Memphis, TN; Air Technical Training Center, Meridian, MS; Air Technical Training Center, Millington, TN.
Length: 6–8 weeks (240–304 hours).
Exhibit Dates: 5/66–Present.
Objectives: To provide enlisted Navy and Marine Corps personnel with training in clerical and administrative procedures.
Instruction: Lectures and practical exercises in office procedures, aeronautical publications, naval maintenance and materiel management systems, aircraft and equipment accounting, aircraft logs and records, and maintenance administration.
Credit Recommendation: In the vocational certificate category, 3 semester hours in typing (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in typing (2/74).

NV-1409-0004

Airborne Communicator

Course Number: E-201-0010; E-201-10.
Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.
Length: 2 weeks (70 hours).
Exhibit Dates: 8/72–Present.
Objectives: To train personnel to perform as airborne communicators.
Instruction: Lectures and practical exercises in airborne communications, including message format and drafting, standard naval communication procedures, naval communications publications, emergency communi-

cation procedures, radio telephone procedures, airborne teletype operation and procedures, fleet air broadcast procedures, encoding/decoding, authentication procedures, teletype preflight message and operating procedures, and relay procedures.

Credit Recommendation: In the vocational certificate category, credit in typing on the basis of institutional evaluation (6/74); in the lower-division baccalaureate/associate degree category, credit in typing on the basis of institutional evaluation (6/74).

NV-1409-0005

MARINE AVIATION SUPPLY (MANUAL), CLASS C

Course Number: C-551-2011.

Location: Air Technical Training Center, Memphis, TN.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/72–Present.

Objectives: To train personnel in aviation supply.

Instruction: Lectures and practical exercises on marine aviation supply, including fundamentals of the squadron material control unit, typing and correspondence, item identification and management codes, material identification, allowance lists, procurement, fundamentals of the group supply department, organization of group supply, functions of the SRS and CCS/SSS, and aviation supply in operation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in typing (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in typing (6/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (6/74).

NV-1409-0006

STOREKEEPER SCHOOL, CLASS A

Course Number: A-551-0014.

Location: Storekeeper, Class A School, Newport, RI; Storekeeper, Class A School, San Diego, CA.

Length: 12 weeks (360 hours).

Exhibit Dates: 7/56–12/68.

Objectives: To train enlisted personnel to be storekeepers.

Instruction: Lectures and practical exercises in typing and processing naval storeroom records.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typing (7/74); in the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

NV-1409-0007

COMMUNICATIONS YEOMAN, CLASS A

Course Number: A-580-013.

Location: *Version 1:* Communications Yeoman, Class A School, Norfolk, VA. *Version 2:* Radioman, Class A School, Bainbridge, MD.

Length: 6 weeks (178–179 hours).

Exhibit Dates: 7/64–12/68.

Objectives: To train enlisted personnel to perform clerical, voice operator, and teletypewriter operator duties.

Instruction: Lectures and practical exercises in the performance of clerical, voice operator, and teletypewriter operator duties, including defense communication systems, Navy communication, communication security, equipment, teletypewriter procedure, voice procedure, maintenance and material management, and communication watch standing.

Credit Recommendation: In the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

NV-1409-0008

MARINE AVIATION OPERATIONS CLERICAL, CLASS C

Course Number: C-517-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 5–6 weeks (188–240 hours). *Version 2:* 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 5/68–Present. *Version 2:* 4/64–4/68.

Objectives: To train enlisted personnel as aviation operations clerks.

Instruction: *All Versions:* Lectures and practical exercises in aviation operations, including airfield operations, squadron operations, office methods, and operational tasks. *Version 2:* Topics include basic typing, flight records and reports, aviator's individual flight log, records and reports, aviation pay records and reports, security of classified information, aircraft mishap reporting procedures, organization and standards of an airfield, flight information planning publications, NOTAMS, weather sequence reports, aircraft clearance, standard directives system, operation and care of office machines, reproduction of directives, and correspondence.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in typing (7/74). *Version 2:* In the upper-division baccalaureate category, credit in typing on the basis of institutional evaluation (12/68).

NV-1511-0001

COUNTERINSURGENCY/SELF-PROTECTION/SERE

Course Number: H-00-5222; H-000-5222.

Location: Amphibious School, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel in Pacific area country orientation, survival, weapons, and counterinsurgency operations.

Instruction: Lectures and practical exercises in the history of insurgent movements; counterinsurgency fundamentals; communist ideology, organization, and goals; guerilla and counterguerilla operations; psychological operations, area cultures, and political orientations; basic language training; field techniques and tactics; and weapons training.

Credit Recommendation: In the upper-division baccalaureate category, 1 semester hour in political science (5/74).

NV-1511-0002

1. COLLEGE OF NAVAL WARFARE
2. SCHOOL OF NAVAL WARFARE
3. SCHOOL OF NAVAL WARFARE (Naval Warfare Course)
4. NAVAL WARFARE COURSE

Course Number: P-00-1101.

Location: Naval War College, Newport, RI.

Length: *Version 1:* 43 weeks. *Version 2:* 43 weeks. *Version 3:* 43 weeks. *Version 4:* 43–86 weeks.

Exhibit Dates: *Version 1:* 8/72–Present. *Version 2:* 8/69–7/72. *Version 3:* 8/58–7/69. *Version 4:* 8/54–7/58.

Objectives: To develop understanding in the science of naval warfare, international relations, and interservice operations, with emphasis on applications to future naval warfare, in order to prepare officers for higher command positions.

Instruction: *Version 1:* Lectures, seminars, and extensive reading and writing in the science of naval warfare, international relations, and interservice operations, including applications to future naval warfare, strategy, economics, nineteenth- and twentieth-century diplomatic history, political science, management and business administration, and tactics. *Version 2:* Lectures, readings, and student research in the science of naval warfare, international relations, and interservice operations, including sea power and maritime strategy and their relationship to the political, economic, social, and military factors affecting national security; international affairs, including international law, organizations, and relations; and the planning and conduct of naval, joint, and combined operations, including management procedures. *Version 3:* Lectures, readings, and student research in the science of naval warfare, international relations and interservice operations, including orientation to armed services and State Department organization; fundamentals of logical analysis; fundamentals of warfare and maritime strategy; international law and its relation to command functions; strategy study, including international relations, factors influencing U.S. national objectives and policy, relations between the U.S. and the free world, the U.S.S.R. and the Soviet bloc, and U.S. and U.S.S.R. interests, objectives, and basic undertakings; organization and interrelationship of offices, departments, and agencies involved in formulation and implementation of national security policy; strategic planning study, including joint strategic, operational, intelligence and logistic planning at various command levels, national military strategy and war plans, contingency concepts of operation under conditions of cold, limited, and general war; naval warfare study, including military planning processes and major weapon systems (both existing and planned), the integrated use and national support of weapon systems in all services, and global strategy; and counterinsurgency, including history of insurgency, causes and effects of successful and unsuccessful insurgent movements, factors influencing conditions where insurgency is a problem, and policies and programs of U.S. governmental agencies charged with assisting underdeveloped areas of the world. *Version 4:* Lectures, readings, and student research in the fundamentals of warfare, international relations, and interservice operations, including applications to future naval warfare. The course is offered in two parts, each one academic year in length. Instruction in the first year includes introduction to the current world situation, nuclear weapons orientation, international relations, operational planning, weapons and weapons systems, logistic support systems, communications systems, concepts for the integrated employment of elements of naval power, the nature of strategy, planning and solution of operational problems at various levels, and characteristics of major strategic areas. Instruction in the second year includes introduction to the current world situation, nuclear weapons orientation, factors affecting areas of the world, planning systems and problems of various levels of command, varied aspects of sea power and national interests, and national policy.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 9 semester hours in the combined areas of economics, nineteenth- and twentieth-century diplomatic history, political science, and international relations, all within the Strategy curriculum; 15 semester hours in the areas of management and business administration within the Defense Economics and Decision Making curriculum; and in the Tactics curriculum, credit is not recommended because of the military-specific nature of the course (8/74); in the graduate degree category, 9 semester hours in the combined areas of economics, nineteenth- and twentieth-century diplomatic history, political science, and international relations, all within the Strategy curriculum, 12 semester hours in the areas of management and business administration within the Defense Economics and Decision Making curriculum; and in the Tactics curriculum, credit is not recommended because of the military-specific nature of the course (3/76). It is recommended that the Naval War College grade of 'Superior' be accepted as equivalent to the grades A or B for the purpose of credit assignment in the graduate category. For other students, acceptance of credit should be contingent upon institutional evaluation. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and regulations of the admitting institution on transfer credit. *Version 2:* In the upper-division baccalaureate category, 30 semester hours; a suggested assignment of credit is as follows: 6 semester hours in international relations, 3 in international law, 3 in evolution of strategic theory (advanced military history), 3 in introductory economics, 3 in management, 3 in study of sea power, 3 in study of military strategy, 3 as an elective, 3 in research training (8/74); in the graduate degree category, 6 semester hours in international relations and law, 2 in evolution of strategic theory (advanced military history), 2 in economics, 2 in management, 0–6 in research training thesis (8/74). It is recommended that the Naval War College grade of 'Superior' be accepted as equivalent to the grades A or B for the purpose of credit assignment in the graduate category. For other students, acceptance of credit should be contingent upon institutional evaluation. Credit granted for theses should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on the transfer credit. *Version 3:* In the upper-division baccalaureate category, 9 semester hours in business administration, 6 in political science—including international relations—and credit in international law on the basis of institutional evaluation (12/68). *Version 4:* In the upper-division baccalaureate category, for each year, 9 semester hours in business organization and management, and additional credit in political science and international law on the basis of institutional evaluation (12/68). NOTE: During this period, the Naval Warfare course was offered in two parts, each one academic year in length. Personnel could take either one or both years of the course.

NV-1511-0003

1. COLLEGE OF NAVAL COMMAND AND STAFF
2. SCHOOL OF NAVAL COMMAND AND STAFF
3. SCHOOL OF NAVAL COMMAND AND STAFF
   (Command and Staff Course)

Course Number: P-00-1201.

Location: Naval War College, Newport, RI.

Length: 43 weeks.

Exhibit Dates: *Version 1:* 8/73–Present. *Version 2:* 8/69–7/73. *Version 3:* 8/54–7/69.

Objectives: To develop understanding in the fundamentals of warfare, international relations, and interservice operations in order to prepare officers for higher command positions.

Instruction: *Version 1:* Lectures, seminars, and extensive reading and writing in the science of naval warfare, international relations, and interservice operations, including applications to future naval warfare, strategy, economics, nineteenth- and twentieth-century diplomatic history, political science, management and business administration, and tactics. *Version 2:* Lectures, readings, and student research and discussions in the science of naval warfare, international relations, and interservice operations, including international relations and law, evolution of strategic theory (advanced military history), economics, military and naval decision-making and planning procedures, tactics, management, and political, legal, social, and economic factors influencing naval operations and policy decisions. *Version 3:* Lectures, readings, and student research and discussions in the fundamentals of naval warfare, international relations, and interservice operations, including fundamentals of logical analysis and group procedures, international law and its effects upon the military establishment; national strategy, including factors influencing national objectives and policies of both the U.S. and the U.S.S.R., alliance systems of both major powers, international organizations and strategic areas of interest, and national security policy for both major powers; counterinsurgency, including history of insurgency, causes and effects of successful and unsuccesful insurgent movements, and policies and programs of preventing and/or countering insurgency; fundamentals of warfare and maritime strategy, including their relation to national security; strategic planning study, including joint strategic, operational, intelligence and logistic planning at various command levels, war planning and contingency concepts of operation for military strategy under conditions of cold, limited, and general war; naval warfare study, including organization and planning for support of operations by naval and marine forces, limitations of the forces and their use in integrated operations on the national level, major weapons systems (both existing and planned), doctrines and concepts of operations, determination of force requirements, and factors influencing conduct of operations in selected geographical areas; and global strategy.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 9 semester hours in the combined areas of economics, nineteenth- and twentieth-century diplomatic history, political science, and international relations, all within the Strategy curriculum; 15 semester hours in the areas of management and business administration within the Defense Economics and Decision Making curriculum; and in the Tactics curriculum, credit is not recommended because of the military-specific nature of the course (8/74); in the graduate degree category, 9 semester hours in the combined areas of economics, nineteenth- and twentieth-century diplomatic history, political science, and international relations, all within the Strategy curriculum; 12 semester hours in the areas of management and business administration within the Defense Economics and Decision Making curriculum; and in the Tactics curriculum, credit is not recommended because of the military-specific nature of the course (3/76). It is recommended that the Naval War College grade of 'Superior' be accepted as equivalent to the grades A or B for the purpose of credit assignment in the graduate category. For other students, acceptance of credit should be contingent upon institutional evaluation. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and regulations of the admitting institution on transfer credit. *Version 2:* In the upper-division baccalaureate category, 21 semester hours (A suggested assignment of credit is as follows: 6 semester hours in international relations and law, 3 in evolution of strategic theory or advanced military history, 3 in introductory economics, 3 in management, 3 as an elective, and 3 in research training) (8/74); in the graduate degree category, 4 semester hours in international relations and law, 2 in evolution of strategic theory (advanced military history), 2 in economics, 2 in management, 0–6 in research training and thesis (8/74). It is recommended that the Naval War College grade of 'Superior' be accepted as equivalent to the grades A or B for the purpose of credit assignment in the graduate category. For other students, acceptance of credit should be contingent upon institutional evaluation. Credit granted for thesis should be contingent upon the graduate school's evaluation of the research paper. Recommendations of credit are maximum figures. The amount actually accepted for transfer depends upon the applicant's future academic goals and the regulations of the admitting institution on transfer credit. *Version 3:* In the upper-division baccalaureate category, 9 semester hours in business administration, and credit in international law and political science—including international relations—on the basis of institutional evaluation (12/68).

NV-1511-0004

NAVAL WAR COLLEGE CORRESPONDENCE COURSE IN STRATEGY AND POLICY

Course Number: None.

Location: Through the Center for Continuing Education, Newport, RI.

Length: *Version 1:* 249 hours. *Version 2:* 300 hours.

Exhibit Dates: *Version 1:* 9/77–Present. *Version 2:* 9/73–8/77.

Objectives: To develop the understanding, insight, and analytical abilities of the student regarding the uses of national power and resources in relations among nations.

Instruction: *All Versions:* The course involves questions of international politics, civilian-military relations, the uses of military forces, the development of national strategies and concepts of national interest, diplomacy, etc. The method used in the course is the intensive study of selected historical periods, events, and the writings of key theorists. The course is built around a series of case studies ranging over time from the Peloponnesian War to World War II and beyond and involves an interdisciplinary approach. The basic materials used are historical, but there are major components that represent international relations, political science, diplomatic history, and, to some degree, economics. For each of the seven topics or blocks of work, the student is assigned a core set of readings and a list of recommended supplementary materials. Required reading for Version 1 totals at least 3700 pages for the course. On the basis of a study of these, the student prepares one or more analytical papers on a topic or topics chosen from a prescribed list. The basic instructional technique is a detailed three or four page critique of each essay prepared by a member of the faculty. By the completion of the Version 1 course, each student will have written between 45 and 90 pages for submission. An integrative examination is given as the final exercise in the course. *Version 2:* Reading required totals at least 6000 pages for the course. Students will write between 200 and 250 pages.

Credit Recommendation: *Version 1:* In the graduate degree category, 6 semester hours in a combination of history, international relations, and political science (to be apportioned by the receiving institution) for students completing the course with a grade of B or higher (5/78). *Version 2:* In the graduate degree category, 9 semester hours in a combination of history, international relations, and political science (to be determined by the receiving institution) for those students completing the course with a grade of B or higher (3/76).

NV-1511-0005

Naval War College Correspondence Course in Defense Economics and Decision Making

Course Number: None.

Location: Through the Center for Continuing Education, Newport, RI.

Length: *Version 1:* 270 hours. *Version 2:* 300 hours.

Exhibit Dates: *Version 1:* 11/77–Present. *Version 2:* 1/74–10/77.

Objectives: To further the students' awareness of the importance of the scarcity of resources as a constraint upon the allocation of these resources among competing uses, both public and private. Stress is placed upon the analytical techniques available for decision making in a context of scarcity with attention to the strengths and limitations of technical analysis.

Instruction: *All Versions:* The course is divided into five major parts embracing microeconomic analysis and the analytical techniques useful in decision making; the behavioral problems that must be considered in the decision-making process; and the management principles and techniques useful in decision making in the public and private sectors. Assigned readings for Version 1 exceed 1900 pages; additional recommended readings are considerably more. Students are required to submit a number of written reports which are critiqued by the faculty in detail. Written submissions for component parts of this Version 1 course total approximately 150 pages. An integrative examination is given as the final exercise in the course. *Version 2:* Required readings exceed 3000 pages; written submissions range between 200 and 250 pages.

Credit Recommendation: *Version 1:* In the graduate degree category, 2 semester hours in quantitative economic analysis, 2 in behavioral analysis in decision making, and 2 in management principles, public and private, for those students completing the course with a grade of B or higher (5/78). *Version 2:* In the graduate degree category, 3 semester hours in quantitative economic analysis, 2 in behavioral analysis in decision making, and 3 in management principles, public and private, for those students completing the course with a grade of B or higher (3/76).

NV-1511-0006

Defense Economics and Decision Making Off-Campus Graduate Seminar

Course Number: None.

Location: Naval War College Off-Campus Location, Washington, DC.

Length: 40 weeks (92 resident hours).

Exhibit Dates: 9/76–Present.

Objectives: This course is designed to further the awareness of the scarcity of resources as a constraint upon the allocation of these resources among competing uses, both public and private. Stress is placed upon the analytical techniques available for decision making in a context of scarcity with attention to the strengths and limitations of technical analysis.

Instruction: The course embraces microeconomic analysis and the analytical techniques useful in decision making; the behavioral problems involved in the decision-making process; and the management principles and techniques useful in decision making in the public and private sectors. There are 40 weekly seminar meetings; one mid-term and a final examination; oral reports; and 5 written reports. Assigned readings exceed 2300 pages; additional recommended readings are considerably more. Examinations and papers are read by the seminar instructors and by the faculty at the Naval War College.

Credit Recommendation: In the graduate degree category, it is recommended that the following graduate credit be given for the following components of this course graded B or better: Quantitative Economic Analysis (3 semester hours); Behavioral Analysis in Decision Making (2 semester hours); Management Principles, Public and Private (3 semester hours) (3/77).

NV-1511-0007

Strategy and Policy Off-Campus Graduate Seminar

Course Number: None.

Location: Naval War College Off-Campus Location, Washington, DC.

Length: Once weekly for 38 weeks (76 hours).

Exhibit Dates: 9/74–Present.

Objectives: To develop the understanding, insight, and analytical abilities of the student regarding the uses of national power and resources in relations among nations.

Instruction: The seminar program is offered on a once-weekly basis. The course involves questions of international politics, civilian-military relations, the uses of military forces, the development of national strategies and concepts of national interest, diplomacy, etc. The method used is the intensive study of selected historical periods, events, and the writings of key theorists. The course is built around a series of case studies ranging over time from the Peloponnesian War to World War II and beyond. The course involves an interdisciplinary approach. The basic materials used are historical, but there are major components that represent international relations, political science, diplomatic history and, to some degree, economics. For each of the seven topics or blocks of work the student is assigned a core set of readings and a list of recommended supplementary materials. The student is evaluated on formal oral presentations, two examinations and seven required papers which generally average a total of 50 pages.

Credit Recommendation: In the graduate degree category, 2 semester hours in history, 2 in international relations, and 2 in political science for students completing the course with a grade of B or higher (4/76).

NV-1511-0008

Defense Economics and Decision Making Self-Administered Seminar (Naval War College)

Course Number: None.

Location: Naval War College Nonresident Location, Jacksonville, FL; Naval War College Nonresident Location, Norfolk, VA.

Length: 32 weeks (64 hours).

Exhibit Dates: 9/77–1/80.

Objectives: To further the students' awareness of the importance of the scarcity of resources as a constraint upon the allocation of these resources among competing uses, both public and private. Stress is placed upon the analytical techniques available for decision making in a context of scarcity with attention to the strengths and limitations of technical analysis.

Instruction: The self-administered seminar (SAS) is administered by the students themselves without an instructor present. Close faculty supervision is provided, however, through faculty staff visits, guest lectures, the use of audio and audio-visual tapes of lectures at the Naval War College, by telephone with College faculty as well as the Defense Economics and Decision Making Seminar instructor in Washington, D.C. being available for consultation, and through the use of conference telephone calls wherein College faculty can provide guidance and respond to questions during the actual seminar meetings. The course is divided into five major parts embracing microeconomic analysis and the analytical techniques useful in decision making; the behavioral problems that must be considered in the decision making process; and the management principles and techniques useful in decision making in the public and private sectors. Assigned readings exceed 1879 pages; additional recommended readings are considerably more. Students are required to submit a number of written reports which are critiqued by the faculty in detail. Written submissions for component parts of this course range between 46 and 73 pages. An integrative examination is given as the final exercise in the course.

Credit Recommendation: In the graduate degree category, 2 semester hours in quantitative economic analysis, 2 in behavioral analysis in decision making, and 2 in management principles, public and private, for students completing the course with a grade of B or higher (5/78).

NV-1511-0009

Strategy and Policy Self-Administered Seminar (Naval War College)

Course Number: None.

Location: Naval War College Nonresident Location, Jacksonville,FL; Naval War College Nonresident Location, Norfolk, VA.

Length: 32 weeks (64 hours).

Exhibit Dates: 9/77–1/80.

Objectives: To develop the understanding, insight, and analytical abilities of the student regarding the uses of national power and resources in relations among nations.

Instruction: The self-administered seminar (SAS) is administered by the students themselves without an instructor present. Close faculty supervision is provided, however, through faculty staff visits, guest lectures, the use of audio and audio-visual tapes of lectures at the Naval War College, by telephone with College faculty as well as the Strategy and Policy seminar instructor in Washington, D.C. being available for consultation, and through the use of conference telephone calls wherein College faculty can provide guidance and respond to questions during the actual seminar meetings. The course involves questions of international politics, civilian-military relations, the uses of military forces, the development of national strategies and concepts of national interest, diplomacy, etc. The method used is the intensive study of selected historical periods, events, and the writings of key theorists. The course is built around a series of case studies ranging over time from the Peloponnesian War to World War II and beyond. The course involves an interdisciplinary approach. The basic materials used are historical, but there are major components that represent international relations, political science, diplomatic history and, to some degree, economics. For each of the seven topics or blocks of work, the student is assigned a core set of readings and a list of recommended supplementary materials. Required reading totals at least 4500 pages for the course. On the basis of a study of these, the student prepares 5 five-to-ten page analytical papers on topics chosen from a prescribed list. The basic instructional technique is a detailed three-or-four-page critique of each essay prepared by a member of the faculty. Students are also required to give three ten or fifteen minute oral critiques of essays written by other seminar members. An integrative examination is given as the final exercise in the course.

Credit Recommendation: In the graduate degree category, 6 semester hours in a combination of history, international relations, and political science (to be apportioned by the receiving institution) for students completing the course with a grade of B or higher (5/78).

NV-1512-0001

Intercultural Relations—Race Relations Specialist Training

Course Number: A-00-0117.

Location: Naval Amphibious School, San Diego, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/72–Present.

Objectives: To train race relations specialists.

Instruction: Lectures and practical exercises in race relations. Course includes classroom presentations, discussions, field projects, and practical exercises which enable the student to demonstrate his ability to facilitate discussions on racial issues.

Credit Recommendation: In the vocational certificate category, 3 semester hours in human relations or basic psychology (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in human relations or basic psychology (8/74); in the upper-division baccalaureate category, 3 semester hours in human relations or basic psychology (8/74).

NV-1512-0002

High Impact Personnel Overseas Duty Training
(Intercultural Relations—Overseas Duty Training)

Course Number: A-00-0115.

Location: Naval Amphibious School, Coronado, San Diego, CA; Naval Amphibious School, Little Creek, Norfolk, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/72–Present.

Objectives: To train enlisted personnel to fulfill diplomatic missions overseas.

Instruction: Lectures and practical exercises in diplomatic missions overseas. Course includes frameworks for analysis of cultures, knowledge of specific cultures, intercultural communications skills, cultural value and ideology, and dynamics of change.

Credit Recommendation: In the vocational certificate category, 2 semester hours in human relations or basic psychology (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in human relations or basic psychology (8/74); in the upper-division baccalaureate category, 2 semester hours in human relations or basic psychology (8/74).

NV-1512-0003

Intercultural Relations—Facilitator Training

Course Number: A-SK-0011.

Location: Naval Amphibious School, San Diego, CA.

Length: 18 weeks (720 hours).

Exhibit Dates: 7/72–Present.

Objectives: To train enlisted personnel to facilitate intercultural relations programs.

Instruction: Lectures and practical exercises in intercultural programs. Course includes leadership skills, team building processes, cultural awareness, course familiarization, communications skills, dynamics of change, and supervised teaching.

Credit Recommendation: In the vocational certificate category, 3 semester hours in human relations or basic psychology, 3 in group dynamics, and, on the basis of institutional evaluation, 6 in supervised teaching (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in group dynamics, 3 in human relations or basic psychology, and, on the basis of institutional evaluation, 6 in supervised teaching (8/74); in the upper-division baccalaureate category, 3 semester hours in human relations or basic psychology, 3 in group dynamics, and, on the basis of institutional evaluation, 6 in supervised teaching (8/74).

NV-1512-0004

Intercultural Relations—Human Resources Development

Course Number: A-00-0116.

Location: Naval Amphibious School, San Diego, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 7/72–Present.

Objectives: To train enlisted personnel in intercultural training.

Instruction: Lectures and practical exercises in intercultural training. Course includes leadership skills, administrative concerns, cultural awareness, communications skills, project management, and dynamics of change.

Credit Recommendation: In the vocational certificate category, 1 semester hour in speech communications, 2 in human relations or basic psychology, 5 in management training or group dynamics (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in speech communications, 2 in human relations or basic psychology, 5 in management training or group dynamics (8/74); in the upper-division baccalaureate category, 1 semester hour in speech communications, 2 in human relations or basic psychology, 5 in management training or group dynamics (8/74).

NV-1512-0005

Human Resource Management Specialist

Course Number: A-7C-0019.

Location: Human Resource Management School, Naval Air Station, Memphis, Millington, TN.

Length: 12 weeks (400 hours).

Exhibit Dates: 6/75–Present.

Objectives: To prepare students in the application of interventive techniques to assist organizations in a more effective use of human resources.

Instruction: The course utilizes lectures, simulations, role play and field experiences (practica). The first six weeks cover a system overview which includes the human resource management support system, communications, group dynamics, racism, sexism awareness, and drug and alcohol awareness. The second six weeks cover instructional systems design and facilitation techniques, data guided development, equal opportunity, the Overseas Diplomacy Mission Element (ODME), and drug and alcohol action programs.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory sociology/social work and 2 in methods in education (6/77); in the upper-division baccalaureate category, 2 semester hours in principles of management and 2 in advanced level sociology/social work (6/77); in the graduate degree category, 1 semester hour in psychology/social work and 3 in survey research methods (6/77).

NV-1512-0006

Human Resource Management Instructor

Course Number: A-7C-0019.

Location: Human Resource Management School, Naval Air Station, Memphis, Millington, TN.

Length: 12 weeks (400 hours).

Exhibit Dates: 6/75–Present.

Objectives: To prepare students to be instructors with a knowledge and understanding of learning, course development, instructional techniques and evaluation in the field of human resource management.

Instruction: The course utilizes lecture, simulation, role play and field experiences (practica). The first six weeks cover a system overview which includes the human resource management support system, communications, group dynamics, racism, sexism awareness, and drug and alcohol awareness. The second six weeks consist of course design/redesign and evaluation, dynamics of learning, and applied teaching techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in introductory sociology/social work and 1 in methods in education (6/77); in the upper-division baccalaureate category, 2 semester hours in principles of management and 4 in education (6/77); in the graduate degree category, 1 semester hour in psychology/social work (6/77).

NV-1513-0001

Naval Staff Advisor

Course Number: A-011-0012; A-011-0013.

Location: Naval Amphibious School, San Diego, CA.

Length: 20–61 weeks.

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel to advise Vietnamese on staff organization and procedures.

Instruction: Lectures and practical exercises in human response training; group dynamics; human relations and behavior; language training; and cultural, ethnic, and economic value systems of U.S.A. and Southeast Asia.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introduction to psychology or human relations, 3 in social sciences (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to psychology or human relations, 3 in social sciences (7/74); in the upper-division baccalaureate category, 3 semester hours in introduction to psychology or human relations, 3 in social sciences (7/74).

NV-1513-0002

Naval Advisor

Course Number: A-2G-0019.

Location: Amphibious School, San Diego, CA.

Length: 15 weeks (507 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel to serve in advisory positions in Vietnam.

Instruction: Lectures and practical exercises in the duties and responsibilities of an advisor in Vietnam. Course includes human response training course (group dynamics, human relations, and human behavior); cultural, ethnic, and economic value system of Southeast Asia; and language training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in introduction to psychology or human relations, 3 in social science (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to psychology or human relations, 3 in social science, and credit in basic Vietnamese on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 3 semester hours in introduction to psychology or human relations, 3 in social science (7/74).

NV-1513-0003

Intercultural Relations—Vietnam Advisor Training

Course Number: A-2G-0020.

Location: Naval Amphibious School, San Diego, CA.

Length: 6 weeks (198 hours).

Exhibit Dates: 7/72–Present.

Objectives: To train enlisted personnel to function effectively as advisors in the Republic of Vietnam.

Instruction: Lectures and practical exercises in the duties and responsibilities of an advisor in Vietnam. Course includes administration concerns and procedures, self-awareness and interpersonal and intergroup relations, personal and group values, nature of prejudice, management, culture, Vietnamese culture, personal action programs, and materials, equipment, and publications.

Credit Recommendation: In the vocational certificate category, 2 semester hours in human relations or group dynamics (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in human relations or group dynamics (7/74); in the upper-division baccalaureate category, 2 semester hours in human relations or group dynamics (7/74).

NV-1513-0004

Chaplain School Basic

Course Number: A-5G-0010.

Location: Naval Education and Training Center, Newport, RI.

Length: 8 weeks (280 hours).

Exhibit Dates: 4/72–Present.

Objectives: To train chaplains to serve the personal religious needs of military personnel.

Instruction: Lectures and practical exercises in the duties of a chaplain in the military. Course includes supervision, guidance, and counseling; drug abuse; discipline; minority group advisement; human growth and development; counseling techniques; group processes and interactions; and leadership skills.

Credit Recommendation: In the vocational certificate category, 3 semester hours in guidance and counseling, 3 in group dynamics (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in guidance and counseling, 3 in group dynamics (8/74); in the upper-division baccalaureate category, 3 semester hours in guidance and counseling, 3 in group dynamics (8/74).

NV-1601-0001

Compressed Gases Cryogenerator Maintenance, Class C

Course Number: A-750-0012.

Location: Compressed Gases Class C School, Portsmouth, VA.

Length: 3 weeks (100 hours).

Exhibit Dates: 7/72–Present.

Objectives: To train personnel to operate and maintain the mechanical portions of the Model 'B' cryogenerator.

Instruction: Lectures and practical exercises on the operation and maintenance of the mechanical portion of the model 'B' nitrogen cryogenerator, including the system and component data; theory of operation and process familiarization of the model 'B' cryogenerator; description, function, and principles of operation of components and systems; corrective maintenance, tracing leaks; critical parts and tolerances; and electrical and mechanical troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in mechanical technology (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in mechanical technology (6/74).

NV-1601-0002

Electrolytic Oxygen Generator 7L16

Course Number: F-652-015.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/67–Present.

Objectives: To train enginemen and machinist mates in the maintenance of the 7L16 oxygen generator.

Instruction: Lectures and practical exercises in the operation and maintenance of the 7L16 electrolytic oxygen generator, including maintenance and material management system, introduction to the electrolytic generator, familiarization to the installed oxygen generator, familiarization with electrolytic cell, flow diagram, pneumatic controls, operating procedures, practical operation and maintenance, annunciation panel and read-out drawer, familiarization with gas analyzers, and purge procedures.

Credit Recommendation: In the vocational certificate category, certificate in mechanical technology (6/74).

NV-1601-0003

Engineering Aid, Class A1 (EA"A")

Course Number: A-412-0010; A-412-0013.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: 11–16 weeks (347–437 hours).

Exhibit Dates: 1/63–Present.

Objectives: To train enlisted personnel to be engineering aides.

Instruction: Lectures and practical exercises in concrete, and soil quality control tests; draft construction drawings; complete topographic and engineering surveys; and mathematical problem solving associated with surveys.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 9 semester hours in civil engineering aid (7/76); in the upper-division baccalaureate category, 3 semester hours in drafting, and 3 in construction survey (7/76).

NV-1601-0004

Equipment Operators, Water Well Drilling and Development, Class C

(EO"C" Water Well Drilling and Development)

Course Number: A-730-0014; A-730-014; A-730-0015; A-730-015; A-730-0016; A-730-016.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: 4 weeks (120 hours).

Exhibit Dates: 11/65–Present.

Objectives: To train enlisted personnel in water well drilling and development operations.

Instruction: Lectures and practical exercises in water well drilling and development, including ground water supply, safety precautions in well drilling, rotary drilling machines, drilling machines maintenance, air operated drills, pumps, testing wells for yield and drawdown, and testing for residual chlorine.

Credit Recommendation: In the vocational certificate category, 2 semester hours in water well drilling (7/76).

NV-1601-0005

Oxygen Generator (Mechanical)

Course Number: L-652-012.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 3–4 weeks (93 hours).

Exhibit Dates: 7/69–Present.

Objectives: To train enlisted personnel to operate and maintain oxygen generation equipment.

Instruction: Lectures and practical exercises in the operation of an oxygen generation system. Course includes electrolytic cell, valve nomenclature, nitrogen system, distilled water system, oxygen system, cooling system, gas analyzer systems, annunciator panel, pneumatic system and controls, pneumatic control calibration, operating and purge procedures, spotting troubles, maintenance and clean-up, generator pressure test, introduction to the electrical system, and generator operation and troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in chemical technology elective (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in chemical technology elective (5/74).

NV-1601-0006

Oxygen Generator Mechanical Model 6L16 (Enlisted)

Course Number: F-652-044.

Location: Submarine School, Groton, CT.

Length: 4 weeks (120 hours).

Exhibit Dates: 5/68–Present.

Objectives: To train enlisted personnel to maintain and operate the 6L16 electrolytic oxygen generator under normal and emergency conditions.

Instruction: Lectures and practical exercises on the operation and maintenance of the 6L16 electrolytic oxygen generator. Course includes function of flow systems and electronic control systems, normal and emergency operations, basic hydraulic principles, valves transducers, hydraulic flow components, electrolytic cell, calibration, preventive maintenance, check-out and test procedure, safety precautions, and system troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in chemical technology (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in chemical technology (5/74).

NV-1601-0007

Oxygen Equipment (Class C)

Course Number: Not available.

Location: Air Technical Training Unit, Lakehurst, NJ.

Length: 14 weeks (560 hours).

Exhibit Dates: 4/56–12/68.

Objectives: To train personnel in the maintenance, testing, and repair of oxygen equipment.

Instruction: Lectures and practical exercises in the maintenance, testing, and repair of the aircraft oxygen equipment, including regulators, full-pressure units, oxygen regulator test stand, pressure breathing regulators, liquid oxygen test stands and conversion units, and ready-room and flight-line procedures.

Credit Recommendation: In the vocational certificate category, 5 semester hours in oxygen equipment (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in aeronautical technology (5/74).

NV-1601-0008

Electrolytic Oxygen Generator Operators

Course Number: A-652-0057.

Location: Submarine Training Center, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train personnel to operate and maintain the 6-L-16 oxygen generator.

Instruction: Lectures and practical exercises in the maintenance and operation of the 6-L-16 oxygen generator, including detailed analysis and troubleshooting of all mechanical components, purging of the oxygen generator, valve nomenclature, cell construction and insulation, cell jumpering and electrolyte refill of cell, basic flow path, transducers, electrical systems and annunciation panel, start-up, normal operation, and shut-downs, cleaning and degreasing, and gas analyzers.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

NV-1601-0009

6L16 Oxygen Generator Technician

Course Number: A-623-0034; F-623-044.

Location: Submarine School, Groton, CT.

Length: 6 weeks (180 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train personnel to perform as 6L16 oxygen generator technicians.

Instruction: Lectures and practical exercises in the maintenance and troubleshooting of the 6L16 oxygen generator, including maintenance and material management system; electrolysis and the electrolytic cell; functional analysis of flow systems and the electrical control system; electrolysis power supply description, analysis, operation, calibration, and troubleshooting; electronic control system power supplies and description; pressure controller circuit analysis; gas analyzer; and system troubleshooting and maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in chemical technology (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in chemical technology (5/74).

NV-1601-0010

Compressed Gases, Class C, High Pressure Oxygen-Nitrogen Plant

(Cryogenics, Class C)

(Compressed Gases, Class C)

Course Number: A-750-0010.

Location: Norfolk Naval Shipyard, Portsmouth, VA.

Length: 14 weeks (436–452 hours).

Exhibit Dates: 10/61–Present.

Objectives: To train enlisted personnel to operate and maintain high-pressure liquid oxygen/nitrogen generating plants and associated equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of high-pressure liquid oxygen/nitrogen generating plants and associated equipment, including physics and chemistry of cryogenics, air liquification, cryogenic storage, transfer and handling equipment, high-pressure air compressors and vacuum pumps, refrigeration, recondenser components and repair, and operation of specific generating plant equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1601-0011

Torpedoes Mk 14 Mod 5 and Mk 16 Mod 8 Intermediate Maintenance

Course Number: A-123-0132; K-123-592.

Location: Service Schools Command, Orlando, FL; Fleet Training Group, Pearl Harbor, HI.

Length: 15 weeks (420–450 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train torpedomen and strikers to operate and maintain the Mk 16 torpedoes and associated test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of Mk 16 torpedoes and associated test equipment, including functional operations, overhaul and repair, disassembly and assembly, and maintenance and preservation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in industrial or mechanical technology (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in industrial or mechanical technology (8/74).

NV-1601-0012

Self-Noise Determination and Classification

Course Number: F-210-013.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel in submarine noise reduction, mechanical vibration and measurement, and use of sound measurement equipment.

Instruction: Lectures and practical exercises in submarine noise reduction, mechanical vibration and measurement, and use of sound measurement equipment. Course includes fundamentals of sound, mathematics, flow noise and damping, noise surveys, balancing, and use of installed equipment for noise monitoring.

Credit Recommendation: In the vocational certificate category, 1 semester hour in noise control or sound control (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in noise control or sound control (8/74).

NV-1601-0013

Engineering Control and Surveillance System Operator, Class C1

Course Number: A-652-0074.

Location: Service School Command, Great Lakes, IL.

Length: 4 weeks (160 hours).

Exhibit Dates: 12/76–Present.

Objectives: To provide technical knowledge and skills in the performance of duties and supervision of personnel involved in the operation of engineering control and surveillance systems of the DD963 class destroyer.

Instruction: Areas of instruction include a working knowledge of the operation and maintenance of the following systems: electrical plant control equipment, propulsion and auxiliary machinery control equipment, propulsion and auxiliary machinery information systems equipment, propulsion local operating equipment and central information system equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance of engineering instrumentation or mechanical control systems (9/77).

NV-1601-0014

Engineering Control and Surveillance System Maintenance, Class C1

Course Number: A-652-0075.

Location: Service School Command, Great Lakes, IL.

Length: 10–12 weeks (400–480 hours).

Exhibit Dates: 1/77–Present.

Objectives: To train qualified electricians in the duties and supervision of the engineering control and surveillance systems of the DD963 class destroyer.

Instruction: Areas of instruction cover the following systems: electrical plant control equipment, propulsion and auxiliary machinery control equipment, propulsion local operating equipment, propulsion and auxiliary machinery information system equipment and ship's control equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in computer operations and 5 as electives in electrical technology (9/77).

NV-1601-0015

DD963 Centralized Damage Control Console Operator, Class C1

Course Number: A-652-0079.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/77–Present.

Objectives: To train enlisted personnel to operate the damage control/fuel control consoles for the DD963 class destroyer.

Instruction: Areas of instruction include the following subsystems: hazard detection panel, fire-main control panel, fuel oil fill and transfer panel, JP-5 control panel, fuel oil and JP-5 local control panels.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1601-0016

DD963 Centralized Damage Control System Console Maintenance, Class C1

Course Number: A-652-0081.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/77–Present.

Objectives: To train personnel to operate and maintain the damage control/fuel control console for the DD963 class destroyer.

Instruction: Areas of instruction include energizing, lining up, monitoring, recognizing and acknowledging simulated fault and hazard conditions and securing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in instrumentation or systems controls (9/77).

NV-1601-0017

SSM Degaussing System for DD963 Class Destroyer, Class C1

Course Number: A-690-0022.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (60 hours).

Exhibit Dates: 4/76–Present.

Objectives: To train personnel to operate and maintain the degaussing system.

Instruction: Instruction in the theory of degaussing, the operation of the degaussing control systems, adjustment, maintenance and troubleshooting associated electrical equipment related to the degaussing systems for ships.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1606-0001

Intelligence Advisor Vietnam

Course Number: A-3A-0023.

Location: Naval Amphibious School, Coronado, San Diego, CA.

Length: 2 weeks (87 hours).

Exhibit Dates: 5/72–Present.

Objectives: To train intelligence officers as operators and advisors in Vietnam by providing thorough study of intelligence processes, functions, and skills.

Instruction: Study of U.S. and Vietnamese intelligence organizations; specialized intelligence activities.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

NV-1606-0002

IOIC Supervisor

Course Number: D-3A-013.

Location: Reconnaissance Attack Squadron Three, Albany, GA.

Length: 5 weeks (200 hours).

Exhibit Dates: 5/69–Present.

Objectives: To train the student in the processing of electronically acquired intelligence information.

Instruction: Electronic data processing methods; photographic processing; storage; programming; compatible interfacing; maintenance procedure.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic data processing, 3 in basic photography (2/74); in the upper-division baccalaureate category, 3 semester hours in electronic data processing, 3 in basic photography (2/74).

NV-1606-0003

Intelligence Officer, Vietnam
(Naval Field Intelligence Officer, Vietnam)

Course Number: H-3A-5516.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 13 weeks (811 hours).

Exhibit Dates: 4/67–Present.

Objectives: To provide commissioned officers with functional training in the organizational development of intelligence communities, with emphasis on the Vietnamese community, language, and culture.

Instruction: Political history of Southeast Asia; comparative religions and cultures; intelligence methods; Vietnamese language; geopolitical concepts.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in Far Eastern language and literature, 3 in political science (2/74); in the upper-division baccalaureate category, 3 semester hours in Far Eastern language and literature, 3 in political science (2/74).

NV-1606-0004

Amphibious Intelligence Staff Officer

Course Number: H-3A-5515.

Location: Naval Amphibious School, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70–3/71.

Objectives: To train commissioned and warrant officers in amphibious intelligence operations, concepts, and principles.

Instruction: Collection, processing, and dissemination of intelligence; intelligence briefing techniques; counterinsurgency methods and principles; communications theory; principles of counterintelligence.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in information and communications, 1 in business administration (2/74); in the upper-division baccalaureate category, 1 semester hour in information and communications, 1 in business administration (2/74).

NV-1606-0005

Marine Enlisted Basic Combat Intelligence

Course Number: G-243-4212.

Location: Amphibious School, Little Creek, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted Marines in basic amphibious combat intelligence functions and procedures.

Instruction: Map and aerial photograph reading, counterintelligence, and reconnaissance methods; beach studies; battalion organization; collection, production, and dissemination of information and military intelligence data.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in photomapping, 1 in industrial security, 1 in public administration (2/74); in the upper-division baccalaureate category, 1 semester hour in photomapping, 1 in industrial security, 1 in public administration (2/74).

NV-1606-0006

Intelligence Man (Air/Ground)

Course Number: H-243-3167.

Location: Naval Amphibious Base, San Diego, CA.

Length: 3 weeks (100 hours).

Exhibit Dates: 11/71–Present.

Objectives: To train enlisted personnel for intelligence duty as assistants in the collection of military material in combat situations.

Instruction: Map instruction; collection, production, and dissemination of intelligence; organizational methods; naval communications procedures; automated intelligence, basic correspondence and filing techniques; combat situations analysis and information collection and reporting.

Credit Recommendation: In the vocational certificate category, credit in topography on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, credit in topography on the basis of institutional evaluation (2/74).

NV-1606-0007

1. Basic Underwater Demolition/Seal Training
   (Basic Underwater Demolition/Seal Team Training)
2. Underwater Demolition Training (Officer)
   (Underwater Demolition Training (Enlisted))
3. Underwater Demolition Training

Course Number: *Version 1:* A-4E-0047; A-431-0024; H-2E-5311; H-431-5311. *Version 2:* G-2E-6244; G-431-6244. *Version 3:* H-2E-5311; H-431-5311.

Location: Amphibious School, San Diego, CA; Amphibious School, Norfolk, VA.

Length: *Version 1:* 20–23 weeks (1223 hours). *Version 2:* 16 weeks (961 hours). *Version 3:* 18 weeks (1082 hours).

Exhibit Dates: *Version 1:* 7/69–Present. *Version 2:* 4/68–6/69. *Version 3:* 9/66–3/68.

Objectives: To train officers and enlisted personnel in the principles and physics of scuba diving.

Instruction: Basics of scuba diving and proper use of scuba diving apparatus.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in marine science technology (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in marine science technology (12/73). *Version 2:* Credit is not recommended because of the military-specific nature of the course (12/73). *Version 3:* Credit is not recommended because of the military-specific nature of the course (12/68).

NV-1606-0008

Diver First Class

Course Number: A-433-0025; A-433-018.
Location: Diving and Salvage School, Washington, DC.
Length: 14-26 weeks (465-858 hours).
Exhibit Dates: 10/66-Present.
Objectives: To train enlisted personnel in advanced diving, salvage, and rescue operations.
Instruction: Lectures and practical experience in advanced ship salvage and submarine rescue methods, helium-oxygen techniques, scuba techniques, underwater welding, and a review of diving physics.
Credit Recommendation: In the vocational certificate category, 6 semester hours in marine science technology (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in marine science or oceanography (12/73); in the upper-division baccalaureate category, 3 semester hours in ocean engineering (12/73).

NV-1606-0009

Deep Sea Helium-Oxygen Diving Officers

Course Number: A-4N-0014.
Location: Diving and Salvage School, Washington, DC.
Length: 7 weeks (224 hours).
Exhibit Dates: 12/68-Present.
Objectives: To train diving officers in the use of helium-oxygen deep diving techniques.
Instruction: Lectures and practical experience in principles and problems of deep diving and use of helium-oxygen mixtures.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/73).

NV-1606-0010

Diver Second Class
(EOD Diver Candidates)

Course Number: A-433-0022.
Location: Naval School, Key West, FL; Naval School, Norfolk, VA; Naval School, San Diego, CA; Naval School, Guam, MI; Naval School, Pearl Harbor, HI; Naval School, Subic Bay, RPI.
Length: 7-10 weeks (230-365 hours).
Exhibit Dates: 1/62-Present.
Objectives: To train enlisted personnel in the basic aspects of scuba diving and underwater practices.
Instruction: Lectures and practical experience in the physics and medical aspects of diving, swimming and underwater swimming, buoyant ascent training, underwater search and inspection, communications, photography, demolition, use and maintenance of deep sea and lightweight diving equipment, and methods of underwater cutting.
Credit Recommendation: In the vocational certificate category, 4 semester hours in marine science technology (1/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in ocean engineering (1/74).

NV-1606-0011

Scuba Diver

Course Number: A-433-0023.
Location: Naval School, San Diego, CA; Naval School, New London, CT; Naval School, Pearl Harbor, HI; Naval School, Key West, FL.
Length: 4 weeks (125-145 hours).
Exhibit Dates: 1/62-Present.
Objectives: To train enlisted personnel in the basic aspects of scuba diving and underwater operations.
Instruction: Lectures and practical experience in the physics and medical aspects of diving; swimming and underwater swimming; buoyant ascent training; underwater search and inspection; communications; photography; demolition; use, maintenance, and repair of deep sea and lightweight diving equipment; methods of underwater cutting and repair.
Credit Recommendation: In the vocational certificate category, 4 semester hours in marine science technology (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in ocean engineering (1/74).

NV-1606-0012

Closed and Semiclosed Scuba

Course Number: None.
Location: Naval School, Key West, FL.
Length: 4 weeks (125 hours).
Exhibit Dates: 1/62-12/68.
Objectives: To train enlisted personnel in all aspects of mixed-gas scuba diving and underwater practices.
Instruction: Lectures and practical experience in mixed-gas scuba diving, diving medicine and physics, equipment use and maintenance, and underwater search and inspection.
Credit Recommendation: In the vocational certificate category, 4 semester hours in marine science technology (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in ocean engineering (1/74).

NV-1606-0013

Underwater Photographer/Scuba Diver

Course Number: None.
Location: Naval School, Key West, FL.
Length: 5 weeks (138 hours).
Exhibit Dates: 1/62-12/68.
Objectives: To train enlisted personnel in the basic principles of scuba diving and underwater photography.
Instruction: Lectures and practical experience in the physics and medical aspects of diving; swimming and underwater swimming; buoyant ascent training; underwater search and inspection; communications; demolition; underwater photography, including the use of still and motion picture cameras, processing, and problems.
Credit Recommendation: In the vocational certificate category, 3 semester hours in marine science technology (1/74).

NV-1606-0014

Medical Deep Sea Diving Technician
(Medical Deep Sea Diving Technic)
(Deep Sea Divers)

Course Number: A-433-0020.
Location: Deep Sea Divers School, Washington, DC.
Length: 21-26 weeks (735-960 hours).
Exhibit Dates: 6/57-Present.
Objectives: To train hospital personnel in the physiological effects of diving, and in diving techniques.
Instruction: Lectures and practical experience in diving physics and physiology as applied to the treatment of compressed-gas illness, accident prevention, mixed-gas diving, and the use of decompression and treatment tables.
Credit Recommendation: In the vocational certificate category, 6 semester hours in paramedical programs or ocean engineering (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in marine science technology (12/73); in the upper-division baccalaureate category, 4 semester hours in marine sciences (12/73).

NV-1606-0015

Ship Salvage Diving Officers

Course Number: A-4N-0011.
Location: Diving and Salvage School, Washington, DC.
Length: 14 weeks (445 hours).
Exhibit Dates: 11/68-Present.
Objectives: To train officers in the use of diving equipment.
Instruction: Diving with deep-sea, lightweight, and Scuba equipment; diving physiology and first aid; and underwater engineering as applied to salvage operations.
Credit Recommendation: In the vocational certificate category, 6 semester hours in ocean engineering (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in ocean engineering (12/73); in the upper-division baccalaureate category, 4 semester hours in ocean engineering (12/73).

NV-1606-0016

Master Diver Qualification

Course Number: A-433-019.
Location: Deep Sea Divers School, Washington, DC.
Length: 5 weeks (160 hours).
Exhibit Dates: 3/69-Present.
Objectives: To prepare experienced divers to meet the eligibility requirements for the title, Master Diver.
Instruction: Lectures and practical experience as refresher training in diving equipment, techniques, and safety, with emphasis on supervisory training.
Credit Recommendation: In the vocational certificate category, 4 semester hours in marine sciences (12/73); in the lower-division baccalaureate/associate degree category, 4 semester hours in oceanography (12/73); in the upper-division baccalaureate category, 3 semester hours in marine engineering (12/73).

NV-1606-0017

Medical Department Diving Officers

Course Number: A-6A-0010.
Location: Diving and Salvage School, Washington, DC.
Length: 8 weeks (256 hours).
Exhibit Dates: 7/69-Present.
Objectives: To provide medical officers with instruction in diving techniques with emphasis on physiological aspects.
Instruction: Familiarization with deep sea, lightweight, and helium diving; operational use of SCUBA; limited training in underwater mechanics; and diving techniques with emphasis on physiological aspects.
Credit Recommendation: Baccalaureate credit is not recommended because course

participation is limited to medical doctors (6/75).

NV-1606-0018

Basic Prop Flight Instructor

Course Number: Q-2A-0060.

Location: Naval Air Station, Corpus Christi, TX.

Length: 3 weeks (117 hours).

Exhibit Dates: 7/73–Present.

Objectives: To train pilots as flight instructors for basic prop aircraft.

Instruction: Lectures and in-flight training in teaching prop-aircraft flight procedures, including the synthetic instrument trainer, instrument simulator, radio instrument simulator, safety procedures, night flight procedures, and aircraft preflight and takeoff procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

NV-1606-0019

Flight Instructor Training

Course Number: None.

Location: Naval Aviation Schools Command, Pensacola, FL.

Length: *Version 1:* 2 weeks (71–78 hours). *Version 2:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 8/68–10/69. *Version 2:* 8/66–7/68.

Objectives: To train qualified pilots to be instructor pilots.

Instruction: Lectures include the basic principles of education, orientation for the instructor pilot, applied aerodynamics, safety procedures, oral communications, and leadership training.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in aerodynamics, 1 in education (2/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in aerodynamics, 1 in education (2/74).

NV-1606-0020

Prospective Prop Flight Instructor

(Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft))

(Prospective ASW Flight Instructor (S-2 Type Aircraft))

Course Number: Q-2A-0061.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 9 weeks (67–94 hours).

Exhibit Dates: 5/63–Present.

Objectives: To train pilots as flight instructors for prop aircraft.

Instruction: Lectures in flight rules and regulations, instrument navigation, aerodynamics, meteorology, operational navigation, in-flight procedures, takeoff and landing techniques, emergency procedures, aircraft engine familiarization, and military tactics.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (2/74).

NV-1606-0021

Prospective TA-4J Flight Instructor

Course Number: Not available.

Location: Naval Air Station, Corpus Christi, TX.

Length: 10 weeks (73 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train pilots as flight instructors for the TA-4J aircraft.

Instruction: Flight training, including instrument navigation, operational navigation, and air-to-ground and air-to-air weapons; and lectures and practical exercises in flight rules and regulations, aerodynamics, and engineering.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in training as an instructor pilot (2/74).

NV-1606-0022

RA-5C Aircraft Familiarization (Pilot/RAN)

(RA-5C Aircraft Familiarization)

Course Number: C-2A-3742.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 2 weeks (77–84 hours).

Exhibit Dates: 2/67–Present.

Objectives: To provide pilots and reconnaissance attack navigators with training in the operation of RA-5C aircraft and systems.

Instruction: Lectures and practical exercises in RA-5C aircraft and systems functions and operation, including electrical, hydraulic, power plant, fuel, and flight control systems operation; and air data computer, master flight reference, approach power compensator, survival, and environmental systems functions and operating procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aircraft familiarization (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft familiarization (3/74).

NV-1606-0023

Basic Jet Navigation, Class O

Course Number: None.

Location: Air Technical Training Center, Glynco, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/66–12/68.

Objectives: To train naval flight officers in basic jet aircraft navigation.

Instruction: Lectures in jet aircraft navigation theory; aircraft equipment; flight safety and survival; flight planning; dead-reckoning, low-level, and radar navigation; and practical experience in navigation operations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in navigation (2/74); in the upper-division baccalaureate category, credit in navigation on the basis of institutional evaluation (12/68).

NV-1606-0024

Command Intelligence Officer (CIO)

Course Number: K-3A-5005.

Location: Fleet Intelligence Training Center, Pacific, San Diego, CA.

Length: 2 weeks (68 hours).

Exhibit Dates: 10/73–Present.

Objectives: To provide basic instruction in the specific functions and responsibilities of the collateral duty command intelligence officer.

Instruction: Instruction includes collection and dissemination of intelligence information and recognition and capabilities of foreign weapon systems. Methods involve classroom lectures and briefings on intelligence aids and techniques and practical exercises on organizing, preparing, and presenting intelligence briefs.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

NV-1606-0025

TA-4J Advanced Jet

Course Number: None.

Location: Naval Air Station, Corpus Christi, TX.

Length: 20 weeks (115–129 hours).

Exhibit Dates: 2/70–Present.

Objectives: To qualify student aviators as jet pilots.

Instruction: Flight training and lectures and practical exercises in aerodynamics, engineering, flight regulations, navigation, and meteorology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in flight experience, 6 in theory of flight (2/74).

NV-1606-0026

SSBN Navigation Officer

Course Number: A-2G-0011.

Location: Guided Missiles School, Dam Neck, VA.

Length: 10 weeks (362 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train officers to manage the operation of the navigation subsystem of the fleet ballistic missile weapons system.

Instruction: Lectures and practical exercises in the management of the navigational subsystem of the fleet ballistic missile weapons system, including administrative procedures, inertial theory and principles of SINS operation, navigation subsystem equipment operation and calibration procedures, calibration theory, and conventional navigation and piloting.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1606-0027

Rawin-Radiosonde Set Operator, Class C

Course Number: C-420-2013.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 6–7 weeks (240–279 hours).

Exhibit Dates: 4/65–Present.

Objectives: To train enlisted personnel to operate radiosonde and rawinsonde upper-air equipment.

Instruction: Lectures and practical exercise in radiosonde and rawinsonde upper-air equipment operation, upper-air data evaluation, winds-aloft computation, radiosonde recorders preventive maintenance and calibration procedures, flight preparation and launching of radiosonde equipment, radiosonde transmitter principles, and meteorological data evaluation procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in weather forecasting techniques on the basis of institutional evaluation (4/74).

NV-1606-0028

Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P3C

Course Number: E-2D-070.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 3 weeks (91 hours).

Exhibit Dates: 8/72–Present.

Objectives: To train pilots in air anti-submarine warfare in P3C (land-based ASW) aircraft.

Instruction: Lectures and practical exercises in air anti-submarine warfare in P3C (land-based ASW) aircraft. Topics include oceanography and underwater acoustics, tactical maneuvering of aircraft engaged in ASW, AASW sensors and related equipment, and electronic warfare concepts.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1606-0029

Rawin Set Operator, Class C

Course Number: Not available.

Location: Air Technical Training Unit, Lakehurst, NJ.

Length: 5 weeks (200 hours).

Exhibit Dates: 3/55–12/68.

Objectives: To train aerographer's mates and enlisted personnel with radiosonde experience to operate and maintain aerometeorological equipment and to evaluate meteorological data.

Instruction: Lectures and practical exercises in radiosonde data evaluation, rawin set theory and associated equipment operation, preflight ground equipment check, radiosonde assembly launching procedures, and data evaluation.

Credit Recommendation: In the upper-division baccalaureate category, credit in weather forecasting techniques on the basis of institutional evaluation (12/68).

NV-1606-0030

Photographic Intelligenceman (PT)
(Photographic Interpretation/Radar Target Analysis)

Course Number: A-242-0010.

Location: Intelligence School, Washington, DC.

Length: 14–16 weeks (420–480 hours).

Exhibit Dates: 8/57–12/68.

Objectives: To train enlisted personnel in air intelligence, photographic interpretation, and radar target analysis.

Instruction: Lectures and practical exercises in photography and photographic interpretation, charts, metrics, target analysis, radar and radar target analysis, and operational and intelligence planning.

Credit Recommendation: In the vocational certificate category, 6 semester hours in photographic interpretation (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in photographic interpretation (5/74); in the upper-division baccalaureate category, 4 semester hours in photographic interpretation (5/74).

NV-1606-0031

Advanced Navigation Training
(Student Naval Flight Officer)

Course Number: Q-2D-0023.

Location: Aviation Training Center, Pensacola, FL.

Length: 9 weeks (311 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train personnel in advanced naviagation.

Instruction: Lectures and practical exercises in advanced navigation, including emergency, day-flight, night-flight, patrol-flight and extended-flight procedures; briefs, debriefs, and flight planning; celestial navigation; advanced navigation techniques; synthetic navigation training; and electronic navigation systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in navigation (6/74).

NV-1606-0032

Advanced Navigation Training
(Postgraduate Naval Aviator)

Course Number: None.

Location: Aviation Training Center, Pensacola, FL.

Length: 6 weeks (178 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train personnel in advanced navigation.

Instruction: Lectures and practical exercises in advanced navigation, including emergency, day-flight, night-flight, patrol-flight and extended-flight procedures; briefs; debriefs; flight planning; celestial navigation; advanced navigation techniques; synthetic navigation training; and electronic navigation systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation (6/74).

NV-1606-0033

Advanced Navigation Training
(Postgraduate Coast Guard Aviator)

Course Number: None.

Location: Aviation Training Center, Pensacola, FL.

Length: 8 weeks (261 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train personnel in advanced navigation.

Instruction: Lectures and practical exercises in advanced navigation, including emergency, day-flight, patrol-flight, and extended-flight procedures; briefs, debriefs, and flight planning; celestial navigation; advanced navigation techniques; synthetic navigation training; and electronic navigation systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation (6/74).

NV-1606-0034

Pilots C-121 Simulator and Advanced Flight

Course Number: D-2B-012.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 6 weeks (180 hours).

Exhibit Dates: 12/66–12/68.

Objectives: To train prospective C-121 pilots and plane commanders in ground and flight techniques.

Instruction: Lectures and practical exercises in C-121 ground and flight techniques, including use of the operational flight simulator and normal and emergency flight procedures and instruments.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1606-0035

Pilots C-121 Simulator and Basic Flight

Course Number: D-2B-013.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/66–12/68.

Objectives: To train prospective C-121 pilots in basic C-121 ground and flight procedures.

Instruction: Lectures and practical exercises in basic C-121 ground and flight procedures, including use of the C-121 operational flight simulator, ground handling characteristics, and normal and emergency flight procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1606-0036

Fleet Replacement Radar Navigator
(Bombardier Navigator)

Course Number: Not available.

Location: Naval Air Station, Whidbey Island, WA.

Length: 16–20 weeks (552–698 hours).

Exhibit Dates: 1/63–Present.

Objectives: To train commissioned officers as fleet replacement radar navigators.

Instruction: Lectures and practical exercises in the duties of fleet replacement radar navigators. Course includes radar navigation, communications, navigation equipment, celestial navigation, sextant usage, flight patterns, and electronic warfare.

Credit Recommendation: In the vocational certificate category, 8 semester hours in navigation (7/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in navigation (7/74); in the upper-division baccalaureate category, 5 semester hours in navigation (12/68).

NV-1606-0037

Prospective Phase I CV (Jet) (TF/AF-9J) Tactical Flight Instructor

Course Number: Not available.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 10 weeks (129 hours).

Exhibit Dates: 8/63–12/68.

Objectives: To train pilots as tactical flight instructors in TF/AF-9J aircraft.

Instruction: Lectures and practical exercises in the duties of a tactical flight instructor. Course includes instruments, navigation, formation, night operations, weapons, and carrier qualifications.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0038

Prospective Advanced Navigation Flight Instructor

Course Number: Q-2D-0064.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 11–16 weeks (95–151 hours).

Exhibit Dates: 9/63–12/68.

Objectives: To train naval aviators and observers as flight instructors.

Instruction: Lectures and practical exercises in flight instructor training, including navigation training, instruments familiarization, flight training, flight rules and regulations, meteorology, engineering, and synthetic instrument training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0039

Prospective TF/TAF-9J Flight Instructor

Course Number: Not available.

Location: Naval Air Station, Corpus Christi, TX.

Length: 10 weeks (167–190 hours).

Exhibit Dates: 5/69–Present.

Objectives: To train flight instructors in TF/TAF-9J aircraft.

Instruction: Lectures and practical exercises in TF/TAF-9J aircraft, including basic instruments, instrument navigation, formation, night flight, operational navigation, air-to-ground weapons, tactics, and carrier qualification.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0040

PROSPECTIVE VA (PROP) TACTICAL FLIGHT INSTRUCTOR

Course Number: Not available.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 12 weeks (267 hours).

Exhibit Dates: 1/65–12/68.

Objectives: To train flight instructors in VA (Prop) tactical flight training.

Instruction: Lectures and practical exercises in VA (Prop) flight training, including formation, tactics, weapons, and navigation on the T-28 and A-1H aircraft.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0041

PROSPECTIVE PHASE II CV (JET) (F11A) TACTICAL FLIGHT INSTRUCTOR

Course Number: Not available.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 10 weeks (72 hours).

Exhibit Dates: 12/63–12/68.

Objectives: To train flight instructors in F9J/F11A jet aircraft.

Instruction: Lectures and practical exercises in flight procedures for F9J/F11A aircraft, including formation, tactics, air-to-air weapons, ground-controlled intercept procedures, night flying, instrumentation, and high-altitude navigation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0042

FLIGHT INSTRUCTOR INDOCTRINATION GROUP

Course Number: Not available.

Location: Air Basic Training Command, Pensacola, FL.

Length: 3 weeks (91 hours).

Exhibit Dates: 7/64–12/68.

Objectives: To train aviators as flight instructors.

Instruction: Lectures and practical exercises in flight instruction procedures, including instructional methods, learning principles, testing methods and score interpretation, flight psychology, counseling, oral communications; and applied aerodynamics (basic physics, various theories and equations, spins and stalls, helicopter flight, jet engine theory and components, reciprocating engines, various curves, take-off and landing problems, stability, and control systems).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in instructional methods (12/68).

NV-1606-0043

P3C TACTICAL COORDINATOR POSITIONAL TRAINING FOR NAVAL FLIGHT OFFICERS

Course Number: E-2D-0075.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72–Present.

Objectives: To provide P3C flight officers with tactical training in antisubmarine warfare.

Instruction: Lectures and practical exercises on P3C aircraft tactical coordinator positional training, including armament/ordnance hardware; flight station review, TACCO station hardware and software; TACCO station familiarization, recovery, tactical navigation, steering/splash points, audio control, sensor processing, initialization, and multipurpose display; switch functions; specific laboratory; and practice trainer brief and debrief.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1606-0044

1. NAVAL FLIGHT OFFICER TRAINING (FLIGHT, ACADEMIC, FLIGHT SUPPORT)
2. NAVAL FLIGHT OFFICER TRAINING (FLIGHT, ACADEMIC, FLIGHT SUPPORT)
3. BASIC NAVAL AVIATION OFFICER
4. BASIC NAVAL AVIATION OFFICER
5. AVIATION LIMITED DUTY OFFICER (LDO) INDOCTRINATION

Course Number: Not available.

Location: Air Station, Pensacola, FL.

Length: *Version 1:* 18–20 weeks (587–619 hours). *Version 2:* 16 weeks (640 hours). *Version 3:* 16 weeks (640 hours). *Version 4:* 8 weeks (195–236 hours). *Version 5:* 8 weeks (320 hours).

Exhibit Dates: *Version 1:* 7/72–Present. *Version 2:* 9/67–6/72. *Version 3:* 7/64–8/67. *Version 4:* 2/61–6/64. *Version 5:* 1/61–2/61.

Objectives: To provide personnel with naval flight training.

Instruction: *All Versions:* Lectures and practical exercises in naval flight training, including aircraft orientation, electronic systems, navigation, and fleet orientation. *Version 1:* Topics include avionics, navigation, operations, ground simulation, programmed instruction, flight, and NATOPS and safety. *Version 2:* Topics include technical fundamentals branch, electricity, electronics, radar fundamentals, computer systems, electronic warfare, advanced systems, navigation branch, flight preparation navigation, airways navigation, dead-reckoning navigation, training device problems, fleet air operations, and air intelligence and recognition. *Version 3:* Topics include electricity and electronics, radar fundamentals, computer systems, aircraft communications, air intelligence and recognition, advanced systems and ASW devices, navigation procedures, meteorology, and flight support. *Version 4:* Topics include navigation, communications, special weapons recognition, fleet operations, air intelligence, and aviation electronics familiarization. *Version 5:* Topics include finance, fleet and tactical organization, personnel administration and organization, and aviation organization.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation on the basis of institutional evaluation (7/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in navigation on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 4 semester hours in navigation (12/68). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 3 semester hours in navigation, 1 in communications (12/68). *Version 4:* In the upper-division baccalaureate category, 1 semester hour in navigation, 1 in communications (12/68). *Version 5:* In the upper-division baccalaureate category, 3 semester hours in naval science (12/68).

NV-1606-0045

NAVIGATION FLIGHT TRAINING, NAVAL AVIATOR AND NAVAL FLIGHT OFFICER

(Navigation Flight Training, Pilot and Naval Aviation Officer (Navigator))

Course Number: None.

Location: Air Advanced Training Command, Corpus Christi, TX.

Length: 3–4 weeks (55–80 hours).

Exhibit Dates: 5/63–Present.

Objectives: To train pilots and flight officers to perform the duties of aerial navigators.

Instruction: Lectures and practical exercises in the duties of an aerial navigator. Course includes radio navigation, celestial navigation, dead reckoning, plotting, antisubmarine warfare navigation, radar navigation, and flight planning.

Credit Recommendation: In the vocational certificate category, 2 semester hours in navigation (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in navigation (8/74).

NV-1606-0046

1. FLIGHT PREPARATION, NAVAL AVIATION CADET AND AVIATION OFFICER CANDIDATE
   (Pre-flight, Naval Aviation Cadets and Aviation Officer Candidates)
2. PRE-FLIGHT, NAVAL AVIATION CADETS AND AVIATION OFFICER CANDIDATES

Course Number: None.

Location: Air Basic Training Command, Pensacola, FL.

Length: 14–16 weeks (543–582 hours).

Exhibit Dates: *Version 1:* 1/63–1/68. *Version 2:* 1/56–12/62.

Objectives: To train enlisted personnel in aviation and aircraft fundamentals.

Instruction: *All Versions:* Lectures and practical exercises in aviation and aircraft fundamentals, including mathematics, physics, night vision, elementary physiology, human behavior fundamentals, leadership training, naval history, military justice, physical fitness, survival training, and principles of flight. *Version 2:* Instruction includes navigation, air intelligence, and personnel administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in navigation, 1 in aeronautics (8/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in navigation (8/74).

NV-1606-0047

1. Flight Systems
   (Flight Preparation, Officer)
   (Pre-flight, Officer)
2. Pre-flight, Officer

Course Number: None.
Location: Air Basic Training Command, Pensacola, FL.
Length: 4–10 weeks (130–375 hours).
Exhibit Dates: *Version 1:* 1/63–Present. *Version 2:* 1/56–12/62.
Objectives: To train personnel in aviation and aircraft fundamentals.
Instruction: *All Versions:* Lectures and practical exercises in aviation and aircraft fundamentals, including mathematics, physics, night vision, elementary physiology, human behavior fundamentals, leadership training, naval history, military justice, physical fitness, survival training, and principles of flight. *Version 2:* Instruction includes navigation, air intelligence, and personnel administration.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 1 semester hour in navigation, 1 in aeronautics (8/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 1 semester hour in navigation (8/74).

NV-1606-0048

Primary Phase, Basic Pilot Training

Course Number: None.
Location: Air Basic Training Command, Pensacola, FL.
Length: 8–9 weeks (42–56 hours).
Exhibit Dates: 1/60–Present.
Objectives: To train basic aviators to fly T-34 aircraft.
Instruction: Lectures and practical exercises in T-34 aircraft flight training, including basic pilot training, maneuvers, flight rules, aerobatics, stalls, spins, and emergency procedures.
Credit Recommendation: In the vocational certificate category, 1 semester hour in aeronautics (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aeronautics (8/74).

NV-1606-0049

Basic Phase, Pilot Training

Course Number: None.
Location: Air Basic Training Command, Pensacola, FL.
Length: 23–32 weeks (232–794 hours).
Exhibit Dates: *Version 1:* 1/60–Present. *Version 2:* 1/54–12/59.
Objectives: To train personnel who have completed primary pilot training to fly high-performance aircraft.
Instruction: Lectures and practical exercises in high-performance aircraft flight training, including flight maneuvers, basic instrument flight, radio navigation, formation flight, aerodynamics, communications, aircraft systems, flight rules, meteorology, navigation, and weapons system.
Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in aeronautics, 1 in communications, 2 in navigation, 1 in aeroengineering (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aeronautics, 2 in navigation, 1 in communications, 1 in aeroengineering (8/74). *Version 2:* In the vocational certificate category, 2 semester hours in aeronautics, 2 in navigation, 1 in communications, 1 in aeroengineering (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aeronautics, 2 in navigation, 1 in communications, 1 in aeroengineering (8/74).

NV-1606-0050

Advanced Phase, Pilot Training

Course Number: None.
Location: Air Advanced Training Command, Corpus Christi, TX.
Length: 10–23 weeks (223–953 hours).
Exhibit Dates: 1/54–Present.
Objectives: To train pilots to be fully qualified fleet pilots.
Instruction: Lectures and practical exercises in engineering, flight tactics, advanced navigation, weapons and warfare, instrument flight, aerodynamics, meteorology, and combat operations.
Credit Recommendation: In the vocational certificate category, 1 semester hour in aeronautics, 1 in navigation, 1 in aeroengineering (8/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aeronautics, 1 in navigation, 1 in aeroengineering (8/74); in the upper-division baccalaureate category, 1 semester hour in aeronautics, 1 in navigation, 1 in aeroengineering (8/74).

NV-1606-0051

Aviation Fleet Preparatory Course I and II, Class P

Course Number: Not available.
Location: Air Technical Training Center, Memphis, TN.
Length: 4–6 weeks (193–240 hours).
Exhibit Dates: 8/70–Present.
Objectives: To provide enlisted personnel with training in fleet aviation operations.
Instruction: Lectures and practical exercises in aviation operations, including organization and familiarization; aircraft squadrons; aircraft carriers; air department division; survival and emergency equipment; personnel and aircraft survival; fire fighting and crash rescue; handtools and hardware; aviation maintenance procedures; aircraft familiarization; basic aircraft systems; aircraft handling; and aircraft maintenance.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1606-0052

Radiosonde Set Operator, Class C

Course Number: Not available.
Location: Air Technical Training Unit, Lakehurst, NJ.
Length: 3 weeks (120 hours).
Exhibit Dates: 7/56–12/68.
Objectives: To train aerographer's mates and enlisted personnel to operate and maintain balloon-carried radiosonde transmitters and to interpret meteorological data.
Instruction: Lectures in radiosonde ground equipment components operation, alignment, and calibration procedures; flight equipment principles of operation, maintenance, alignment, and calibration; aerological data evaluation; and in-flight, release, and data-forwarding procedures.
Credit Recommendation: In the upper-division baccalaureate category, credit in weather forecasting techniques on the basis of institutional evaluation (12/68).

NV-1606-0053

E-1B Aircraft Pilot Training

Course Number: D-2B-0016.
Location: Carrier Airborne Early Warning Training Squadron 120, Norfolk, VA.
Length: 16 weeks (160 hours).
Exhibit Dates: 2/74–Present.
Objectives: To train aviators to pilot the E-1B aircraft.
Instruction: Lectures and flight exercises in formation flying, instrument familiarization, and carrier operations.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1606-0054

E-2B Aircraft Pilot Training

Course Number: D-2B-0015.
Location: Carrier Airborne Early Warning Training Squadron 120, Norfolk, VA.
Length: 16 weeks (425 hours).
Exhibit Dates: 2/74–Present.
Objectives: To train aviators to pilot the E-2B aircraft.
Instruction: Lectures and flight exercises in formation flying, instrument familiarization, and carrier operations.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1606-0055

Reserve Air Intelligence (RAI)

Course Number: J-3A-0955; K-3A-5011; K-3A-527.
Location: Fleet Intelligence Training Center, Pacific, San Diego, CA.
Length: 2 weeks (100 hours).
Exhibit Dates: 7/71–Present.
Objectives: To provide reserve officers with training in the fundamentals of air intelligence.
Instruction: Specialized training and practical exercises in the air intelligence environment; identification of foreign weapon systems; methods of collecting and reporting intelligence data; and related topics such as electronic warfare, aerial maps, etc.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1606-0056

Reserve Basic Intelligence Training Subjects (BITCS)

Course Number: K-3A-5010; K-3A-526.
Location: Fleet Intelligence Training Center, Pacific, San Diego, CA.
Length: 2 weeks (68 hours).
Exhibit Dates: 7/71–Present.
Objectives: To provide entry-level training to commissioned or reserve officers in the area of intelligence.
Instruction: Instruction includes discussions on the intelligence environment; intelligence methods; photographic intelligence, including imagery interpretation; and other related topics such as security, naval messages, operation plans and orders, and electronics countermeasures.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in intelligence or public security (6/75).

NV-1606-0057

S-3A Copilot Avionics

Course Number: E-2A-1718; E-2A-0018.
Location: Fleet Aviation Specialized Operational Training Group, North Island, CA.
Length: 6 weeks (187 hours).
Exhibit Dates: 5/74–Present.

Objectives: To prepare copilots for S-3A mission training in the replacement squadron (VS-41).

Instruction: Lectures and practical exercises in navigation systems, communications, and electronic surveillance measures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1606-0058

Aviation Fleet Preparatory Course I and II

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 4–6 weeks (193–240 hours).

Exhibit Dates: 8/70–Present.

Objectives: To provide enlisted personnel with training in fleet aviation operations.

Instruction: Lectures and practical exercises in aviation operations, including organization and familiarization; aircraft squadrons; aircraft carriers; air department divisions; survival and emergency equipment; personnel and aircraft survival; fire fighting and crash rescue; handtools and hardware; aviation maintenance procedures; aircraft familiarization; basic aircraft systems; aircraft handling; and aircraft maintenance.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1606-0059

Amphibious Staff Intelligence Officer (ASIO)

Course Number: K-3A-5006.

Location: Fleet Intelligence Training Center, Pacific, San Diego, CA.

Length: 2 weeks (68 hours).

Exhibit Dates: 1/73–Present.

Objectives: To provide training in amphibious operations and amphibious staff intelligence functions.

Instruction: Topics include amphibious orientation, with emphasis on an overall view of composition and organization; intelligence planning and characteristics of the area of amphibious operations.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/75).

NV-1606-0060

Operations Specialist, Class A1

Course Number: A-221-0011.

Location: Service School Command, Great Lakes, IL.

Length: 14–15 weeks (442–480 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train personnel to perform duties required in a combat information center.

Instruction: Lectures and practical exercises in procedures used in message communications, radar navigation, radar course plotting, using vector plotting in the operation of radar systems and data interpretation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in navigation practices and 1 in navigation laboratory (9/77).

NV-1606-0061

Airborne Systems

Course Number: None.

Location: Test Pilot School, Patuxent River, MD.

Length: 48 weeks (442–476 hours).

Exhibit Dates: 1/75–Present.

Objectives: To train experienced pilots, Naval Flight Officers, and engineers to become qualified engineering test pilots, test flight officers, and test project engineers.

Instruction: Classroom lectures, assignments, examinations, airborne demonstrations, and flight projects including aircraft performance, aerodynamics, propulsion, stability and control, flight testing, and airborne systems. Prerequisites include college physics or mechanics and mathematics through algebra and differential calculus.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in aircraft performance, 2 in introductory aerodynamics, 3 in jet propulsion, 3 in stability and and control, 3 in flight testing, and 3 in airborne systems, for a total of 16 hours (7/79)

NV-1606-0062

Fixed Wing Flight Mechanics

Course Number: None.

Location: Test Pilot School, Patuxent River, MD.

Length: 48 weeks (429–434 hours).

Exhibit Dates: 1/73–Present.

Objectives: To train experienced aviators and engineers to become qualified engineering test pilots and test project engineers.

Instruction: Classroom lectures, assignments, examinations, airborne demonstrations, and test flying assignments including performance, aerodynamics, propulsion, stability and control, flight testing and airborne systems. Prerequisites include college physics or mechanics and mathematics through algebra and differential calculus.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in aircraft performance, 2 in introductory aerodynamics, 3 in jet propulsion, 3 in stability and control, and 4 in flight testing, for a total of 15 hours (7/79).

NV-1606-0063

Rotary Wing Flight Mechanics

Course Number: None.

Location: Test Pilot School, Patuxent River, MD.

Length: 48 weeks (439–445 hours).

Exhibit Dates: 1/73–Present.

Objectives: To train experienced aviators and engineers to become qualified engineering test pilots and test project engineers.

Instruction: Classroom lectures, assignments, examinations, airborne demonstrations, and test flying assignments, including aircraft performance, aerodynamics, propulsion, stability and control, flight testing, and airborne systems. Prerequisites include college physics or mechanics and mathematics through algebra and differential calculus.

Credit Recommendation: In the upper-division baccalaureate category, 4 semester hours in aircraft performance, 1 in introductory aerodynamics, 3 in jet propulsion, 3 in stability and control, and 4 in flight testing, for a total of 15 hours (7/79)

NV-1701-0001

P-3 Air Conditioning, Pressurization and Utilities Organizational Maintenance

Course Number: C-603-3532.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train enlisted personnel to service and maintain aircraft air-conditioning, pressurization, and utility systems.

Instruction: Lectures and practical exercises in the maintenance of aircraft air-conditioning, pressurization, and utility systems. Topics include aircraft air conditioning with high-pressure air and components; and ground air conditioning and ventilation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft air conditioning (6/74).

NV-1701-0002

Lithium Bromide Air Conditioning

Course Number: A-720-0028; F-652-041.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel to perform basic maintenance procedures on a lithium bromide air-conditioning unit.

Instruction: Lectures and practical exercises in the operation and maintenance of lithium bromide absorption systems. Course includes a study of the construction and operation of components, leak testing, purge system operation, and preventive maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in operation and maintenance of a lithium bromide air-conditioning unit (5/74).

NV-1701-0003

E-2B and C-2A Environmental Systems Organizational Maintenance

(E-2A Environmental Systems Organizational Maintenance)

Course Number: C-602-3472.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (60–75 hours).

Exhibit Dates: 1/69–Present.

Objectives: To train enlisted personnel to operate and maintain aircraft air-conditioning systems.

Instruction: Lectures and practical exercises in the maintenance of aircraft environmental systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aircraft air conditioning (5/74).

NV-1701-0004

R-11 Centrifugal 110 Ton Air Conditioning Combined Maintenance

(110 Ton R11 Centrifugal Air Conditioning Unit (York))

Course Number: A-652-0111; F-652-032.

Location: Submarine School, Groton, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 4/72–Present.

Objectives: To train enlisted personnel to operate and perform mechanical maintenance on a centrifugal refrigeration system.

Instruction: Lectures and practical exercises in the maintenance of a centrifugal refrigeration system. Topics include centrifugal compressor and capacity control mechanism construction and operation, and the maintenance procedures involved in the use of the air-purging system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in mechanical maintenance of a centrifugal refrigeration unit (5/74).

NV-1701-0005

Air Conditioning and Refrigeration, Class C
(Air Conditioning and Refrigeration, Class C-1)

Course Number: A-720-010; A-720-011.
Location: Air Conditioning and Refrigeration School, San Diego, CA; Air Conditioning and Refrigeration School, Norfolk, VA.
Length: 8 weeks (240-247 hours).
Exhibit Dates: 7/58-Present.
Objectives: To train enlisted personnel to operate, test, maintain, and repair air-conditioning and refrigeration equipment and systems.
Instruction: Lectures and practical exercises in the operation, testing, maintenance, and repair of air-conditioning and refrigeration equipment and systems, including refrigeration unit components, accessories, and controls; basic mathematics; refrigeration fundamentals; electrical systems in refrigeration; compressors and condensers; air-cooled equipment; water coolers; ice makers; refrigeration and air-conditioning plant operations; and psychrometrics and applications, including ventilation and air purification.
Credit Recommendation: In the vocational certificate category, 20 semester hours in basic refrigeration (6/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in basic refrigeration (6/74).

NV-1701-0006

Centrifugal Air Conditioning Plant Operation and Maintenance

Course Number: A-720-0025.
Location: Development and Training Center, San Diego, CA.
Length: 2 weeks (60 hours).
Exhibit Dates: 9/73-Present.
Objectives: To train personnel to operate and maintain centrifugal refrigeration and air conditioning equipment.
Instruction: Classroom and practical instruction in the operational characteristics and procedures for centrifugal refrigeration systems, including operation, adjustment, control, and service/repair of centrifugal units and accessory centrifugal equipment.
Credit Recommendation: In the vocational certificate category, 2 semester hours in plant operation and maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in plant operation and maintenance (6/75).

NV-1702-0001

Cascadex 100 Pound Washer/Extractor Maintenance, Class C

Course Number: A-690-0017.
Location: Technical Training Command, San Diego, CA.
Length: 2 weeks (60 hours).
Exhibit Dates: 4/72-Present.
Objectives: To train personnel to perform corrective maintenance on the Cascadex 100-pound combination washing and extracting machine.
Instruction: Lectures and practical exercises on the maintenance and repair of the assemblies and systems of the Cascadex 100-pound combination washing and extracting machine, including a general description of the washing and extracting machine, manual operation of the washer/extractor, formula card programming, formula operation of the washer/extractor, electrical controls, description of the fill and drain circuit, and electrical troubleshooting.
Credit Recommendation: In the vocational certificate category, 1 semester hour in appliance repair (5/74).

NV-1703-0001

Construction Mechanic/Automotive Electrical Maintenance, Class C
(CM"C" Automotive Electrical Maintenance)

Course Number: A-610-0026.
Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.
Length: 5 weeks (150 hours).
Exhibit Dates: 1/72-Present.
Objectives: To train enlisted personnel to maintain and repair automotive and construction equipment electrical systems.
Instruction: Lectures and practical exercises in the maintenance and repair of automotive and construction equipment electrical systems, including electrical fundamentals, electrical test equipment, storage battery operation, cranking motors and switches, ignition systems, direct current charging systems, semiconductors, and alternating-current charging systems.
Credit Recommendation: In the vocational certificate category, 3 semester hours in automobile electricity (7/76); in the lower-division baccalaureate/associate degree category, 3 semester hours in automobile electricity (7/76).

NV-1703-0002

Enginemen, Gas Turbine Engines, Class C

Course Number: Not available.
Location: Engineman School, Great Lakes, IL.
Length: 7-8 weeks (215-250 hours).
Exhibit Dates: 6/63-12/68.
Objectives: To train enginemen to supervise turbine engine operators.
Instruction: Lectures and practical exercises in basic gas turbine engine principles, operation, and construction; component systems; and specific gas turbine engines operation, adjustment, troubleshooting, components, and accessories.
Credit Recommendation: In the vocational certificate category, 6 semester hours in gas turbines (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in mechanical or automotive technology (5/74).

NV-1703-0003

Construction Mechanic/Automatic Transmissions, Class C
(CM"C" Auto Trans)

Course Number: A-610-0021.
Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.
Length: *Version 1:* 8 weeks (240 hours). *Version 2:* 5 weeks (160 hours).
Exhibit Dates: *Version 1:* 12/69-Present. *Version 2:* 4/65-11/69.
Objectives: To train enlisted personnel to test, adjust, and repair automatic transmissions on automotive and construction equipment.
Instruction: *All Versions:* Lectures and practical exercises in hydraulics, torque converters, planetary gear systems, and automatic transmission control systems theory and principles; theory, operation, disassembly, inspection, repair, assembly, and troubleshooting of powerglide, Ford C-4 Cruise-O-Matic, Allison torqmatic, and International-Hough torque converters and powershift transmissions. *Version 2:* Instruction includes Fordomatic two-speed, hydramatic dual range, Allison MT series, and Caterpillar powershift transmissions.
Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in automotive or heavy equipment (7/76); in the lower-division baccalaureate/associate degree category, 6 semester hours in automotive or heavy equipment (7/76). *Version 2:* In the vocational certificate category, 5 semester hours in automotive or heavy equipment (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive or heavy equipment (5/74).

NV-1703-0004

General Motors Engines (16-278A)

Course Number: F-652-018.
Location: Submarine School, Groton, CT.
Length: 2 weeks (60 hours).
Exhibit Dates: 11/72-Present.
Objectives: To train enlisted personnel to repair and maintain General Motors Engines.
Instruction: Lectures and practical exercises in the repair and maintenance of General Motors engines, including major engine components and systems; camshafts, timing gears and engine timing procedures; and disassembly, cleaning, inspection, reassembly, and testing of the air blower, cylinder unit, governor and unit injector.
Credit Recommendation: In the vocational certificate category, 2 semester hours in automotive repair (5/74).

NV-1703-0005

Mine Warfare Engineman Basic
(Engineman Basic)

Course Number: A-652-0038.
Location: Mine Warfare School, Charleston, SC.
Length: 3 weeks (90 hours).
Exhibit Dates: 11/71-Present.
Objectives: To train petty officers in diesel engine theory.
Instruction: Lectures and demonstrations in diesel operation and construction, precision measurements, fuel properties, fuel systems, intake and exhaust systems, and piping and valves.
Credit Recommendation: In the vocational certificate category, 3 semester hours in automotive technology and heavy equipment (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in automotive technology and heavy equipment (7/74); in the upper-division baccalaureate category, 3 semester hours in automotive technology and heavy equipment (7/74).

NV-1703-0006

Aviation Support Equipment Gasoline Engine Intermediate Maintenance

Course Number: C-602-3214.
Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.
Length: 3 weeks (120 hours).

Exhibit Dates: 5/71–Present.

Objectives: To train enlisted personnel to maintain gasoline engines.

Instruction: Lectures and practical exercises in gasoline engine maintenance, including principles of internal-combustion engines; engine disassembly, inspection, repair, and reassembly; and repair of engine-related subsystems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in engine repair laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in engine repair laboratory (7/74).

NV-1703-0007

LST 1182 Propulsion Technician, Class C1

Course Number: A-652-0054.

Location: Service School Command, Great Lakes, IL.

Length: 7 weeks (270 hours).

Exhibit Dates: 6/77–Present.

Objectives: To train personnel to operate and maintain the propulsion systems (ALCO 251-C) installed in the 1182 LST.

Instruction: This course is a combination of A-652-0055, LST 1179-1182 Class Controllable Pitch Propeller and Propulsion Control System (NV-1710-0023) and A-652-0056, ALCO 251-C Diesel Engine (NV-1712-0010). Topics cover the operation, troubleshooting and maintenance of the specified equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel technology and 2 as electives in automotive/mechanical technology (9/77).

NV-1703-0008

LM2500 Gas Turbine Module
Maintenance, Class C1

Course Number: A-652-0072.

Location: Service School Command, Great Lakes, IL.

Length: 5 weeks (187 hours).

Exhibit Dates: 1/76–Present.

Objectives: To train personnel in the maintenance of the LM2500 gas turbine.

Instruction: Areas of instruction include the LM2500 gas turbine assembly, fuel speed governing systems, lubrication system, electrical system integration, starting system, airflow fundamentals, maintenance and safety practices, servicing, troubleshooting, installing and aligning turbines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in automotive/mechanical technology (9/77).

NV-1703-0009

Ship's Service Gas Turbine Generator
Module (Allison 501)
Maintenance, Class C1

Course Number: A-652-0076.

Location: Service School Command, Great Lakes, IL.

Length: 5 weeks (200 hours).

Exhibit Dates: 12/76–Present.

Objectives: To provide specific instruction in gas turbine engine operation, inspection and maintenance related to the DD963 class destroyer.

Instruction: Areas of instruction include gas turbine engine operation, construction, cooling, lubrication, trouble identification, inspection and maintenance; gear reduction; generator operation and control; and use of specific inspection equipment and procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 4 semester hours in gas turbine engine inspection, operation and maintenance (9/77).

NV-1704-0001

Air Intercept Control, Class O

Course Number: C-2D-2014.

Location: Air Technical Training Center, Glynco, GA.

Length: 6–7 weeks (240–264 hours).

Exhibit Dates: 3/65–Present.

Objectives: To provide commissioned officer, noncommissioned officer, and enlisted radar personnel with training in air intercept control.

Instruction: Lectures and practical exercises in air intercept control procedures, communications, and equipment use.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1704-0002

Air Intercept Controller

Course Number: K-2G-0007; K-2G-362.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 4–5 weeks (116–158 hours).

Exhibit Dates: 6/67–Present.

Objectives: To train officers and enlisted personnel to control fleet interceptor aircraft in airborne combat situations.

Instruction: Lectures and practical demonstrations in fleet interceptor aircraft operations, including air weapons systems, navigation aids, communications procedures and vocabulary, radar indicator equipment, search and rescue procedures, and intercept control methods and techniques.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1704-0003

Air Traffic Control Officers, Class O

Course Number: C-2G-2014.

Location: Air Technical Training Center, Glynco, GA.

Length: 9–10 weeks (360–392 hours).

Exhibit Dates: 8/66–Present.

Objectives: To train officers to perform as air traffic controllers and control center officers.

Instruction: Lectures and practical exercises in navigational aids, FAA regulations, air traffic control radar procedures, air traffic control terminal procedures, instrument procedures, and aviation meteorology.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control (3/74).

NV-1704-0004

Air Controlman, Class A

Course Number: C-222-2010.

Location: Air Technical Training Center, Olathe, KS; Air Technical Training Center, Glynco, GA.

Length: 10–14 weeks (400–560 hours).

Exhibit Dates: 3/66–Present.

Objectives: To qualify enlisted personnel for FAA certification in control tower operations.

Instruction: Lectures and practical exercises in basic air navigation and navigational aids; aviation meteorology; airport traffic control; and air traffic rules and regulations, communication procedures, and radar use.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control (3/74).

NV-1704-0005

Air Intercept Controller Supervisor

Course Number: K-2G-363.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 3 weeks (108–117 hours).

Exhibit Dates: 6/67–Present.

Objectives: To train air intercept controllers to instruct and supervise personnel in intercept control procedures.

Instruction: Lectures and practical exercises in intercept procedures and functions, supervisory techniques, emergency procedures, and interceptors and associated equipment usage.

Credit Recommendation: In the vocational certificate category, 1 semester hour in air traffic control (3/74) and 1 in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/74).

NV-1704-0007

Air Controlman, Class B

Course Number: None.

Location: *Version 1:* Air Technical Training Center, Glynco, GA. *Version 2:* Air Technical Training Center, Olathe, KS.

Length: *Version 1:* 9–11 weeks (372–456 hours). *Version 2:* 16 weeks (640 hours).

Exhibit Dates: *Version 1:* 10/65–Present. *Version 2:* 9/54–9/65.

Objectives: To provide control tower operators with advanced training in air traffic control and in personnel management.

Instruction: Lectures and practical exercises in advanced air traffic control techniques and procedures; instrument approaches; air navigation; meteorology; and organizational, personnel, and administrative management.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in supervision and management, 1 in air navigation, 15 in air traffic contol, 1 in aviation meteorology (3/74). *Version 2:* No credit—course material obsolete (3/74).

NV-1704-0008

Air Controlman T (Tower), Class A

Course Number: None.

Location: Air Technical Training Unit, Olathe, KS.

Length: 10 weeks (400 hours).

Exhibit Dates: 6/56–2/66.

Objectives: To provide enlisted personnel with the knowledge and skills necessary to qualify for FAA certification as air traffic control tower operators.

Instruction: Lectures and practical exercises in air traffic control, aerial meteorology, control tower communications, aircraft characteristics, and FAA regulations.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation meteorology, 4 in air navigation, 18 in air traffic control (3/74); in the upper-division baccalaureate category, credit in air control tower operations on the basis of institutional evaluation (12/68).

NV-1704-0009

Air Controlman W (Early Warning), Class A

Course Number: None.

Location: Naval Air Station, Glynco, GA.

Length: 12 weeks (480 hours).

Exhibit Dates: 11/56–2/66.

Objectives: To train enlisted personnel in air traffic control and radar surveillance techniques.

Instruction: Lectures and practical exercises in air traffic control and radar surveillance techniques, including air navigation, electronic fundamentals applicable to radar operations, and communications techniques.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 9 semester hours in electronics, 12 in air traffic control, 2 in navigation (3/74); in the upper-division baccalaureate category, credit in air control tower operations on the basis of institutional evaluation (12/68).

NV-1704-0010

Air Controlman (Radar), Class A

Course Number: None.

Location: Air Technical Training Unit, Olathe, KS.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/56–2/66.

Objectives: To provide enlisted personnel with training in radar operations applicable to air traffic control.

Instruction: Lectures and practical exercises in air traffic control fundamentals, air navigation, air traffic communications, aircraft characteristics, and radar theory and applications to air traffic control.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in air navigation, 3 in air traffic control (3/74).

NV-1704-0011

Air Control, Class O

Course Number: None.

Location: Naval Air Station, Glynco, GA.

Length: 5 weeks (200 hours).

Exhibit Dates: 11/56–12/68.

Objectives: To provide chief petty officers and officer personnel with training in all phases of air control.

Instruction: Lectures and practical exercises in anti-submarine air operations, offensive and defensive aircraft operations, jet aircraft familiarization, air control data collection equipment usage, and basic air control procedures and techniques.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1704-0012

Carrier Air Traffic Control Center Controller Class C/O

Course Number: C-2G-2016.

Location: Air Technical Training Center, Glynco, GA.

Length: 3–6 weeks (160–264 hours).

Exhibit Dates: 3/65–Present.

Objectives: To provide officers and air controlmen with training in carrier air traffic control center operations.

Instruction: Lectures and practical exercises in carrier air traffic control center equipment and operating procedures, carrier controlled approach, and Naval Tactical Data System (NTDS) console training.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1704-0013

A-7E Hydraulic and Pneumatic Systems Organizational Maintenance

Course Number: C-602-3793.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 9/72–Present.

Objectives: To train maintenance personnel in the techniques, modifications, and servicing procedures applicable to A-7E aircraft control systems.

Instruction: Practical experience in troubleshooting, maintenance and servicing structures, and hydraulic, pneumatic, primary flight control, and auxiliary systems.

Credit Recommendation: In the vocational certificate category, credit in evaluation and pneumatic systems on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in hydraulic and pneumatic systems on the basis of institutional evaluation (3/74).

NV-1704-0014

KC-130F T-56-A-16 Engine Intermediate Maintenance/Complete Engine Repair

Course Number: C-601-3507.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/71–Present.

Objectives: To train fleet personnel in the maintenance of KC-130F aircraft engines.

Instruction: Practical experience in planned maintenance systems, general specifications of engines, and disassembly, cleaning, and engine inspection and preservation.

Credit Recommendation: In the vocational certificate category, credit in aircraft engine maintenance on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in aircraft engine maintenance on the basis of institutional evaluation (3/74).

NV-1704-0015

A-4 Automatic Flight Control System Intermediate Maintenance

Course Number: C-602-3735.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel to maintain the A-4 aircraft's flight control systems.

Instruction: Practical experience in troubleshooting, circuit analysis, testing, publications procedures, and intermediate maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in maintenance electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance electronics (12/68).

NV-1704-0016

TF30-P-8/408 Engine Intermediate Maintenance/Complete Engine Repair

(TF30-P-8 Intermediate Maintenance/Complete Engine Repair)

Course Number: C-601-3132.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/68–Present.

Objectives: To provide maintenance personnel with instruction in TF30-P-8/408 aircraft engine maintenance.

Instruction: Lectures and practical exercises in TF30-P-8/408 aircraft engine maintenance, including engine components inspection and repair; engine systems operation; and engine assembly, disassembly, and testing procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine laboratory (3/74).

NV-1704-0017

P-3 T56-A-10W Engine and Related Systems Maintenance, No. 56

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68–Present.

Objectives: To provide maintenance personnel with training in P-3 aircraft power plant and related systems maintenance.

Instruction: Lectures and practical exercises in P-3 aircraft power plant and related systems maintenance, including engine organizational and intermediate maintenance procedures, operating principles, and theory; and propeller and related systems maintenance, installation, inspection, and repair.

Credit Recommendation: In the vocational certificate category, 3 semester hours in power plant organizational maintenance, 1 in power plant intermediate maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance, 1 in power plant intermediate maintenance (3/74).

NV-1704-0018

UH-1E T53-L-11 Engine Organizational Maintenance

Course Number: C-601-3341.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train maintenance personnel to maintain and repair T53-L-11 aircraft turbine engine systems.

Instruction: Lectures and practical exercises in T53-L-11 turbine engine system operation and maintenance, including inspection, line-servicing, troubleshooting, testing, adjusting, and repairing all engine systems and components.

Credit Recommendation: In the vocational certificate category, credit in T53-L-11 turbine engine organizational maintenance on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in T53-L-11 turbine engine organizational maintenance on the basis of institutional evaluation (3/74).

NV-1704-0019

P-3 T56-A-10/14 ENGINE AND RELATED SYSTEMS ORGANIZATIONAL MAINTENANCE

(P-3 T56-A-14 Engine and Related Systems Maintenance)

Course Number: C-601-3533.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 4-5 weeks (160-200 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train maintenance personnel to repair P-3 aircraft power plants and related systems.

Instruction: Lectures and practical exercises in P-3 aircraft power plant and related systems maintenance, including T56-A-14 power plant system maintenance and service, engine diagnosis and troubleshooting, jet engine theory, test equipment operation, and propeller and related systems.

Credit Recommendation: In the vocational certificate category, credit in T56-A-14 engines and related systems maintenance on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in T56-A-14 engines and related systems maintenance on the basis of institutional evaluation (3/74).

NV-1704-0020

T58-GE-8F ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Anna, CA; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/71-Present.

Objectives: To train maintenance personnel to maintain and repair T58-GE-8F turbine engines.

Instruction: Lectures and practical exercises in T58-GE-8F maintenance, including engine systems repair and testing; engine construction familiarization; special tools operation; and engine inspection, disassembly, complete repair, and reassembly.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine laboratory (3/74).

NV-1704-0021

T58-GE-8B ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: C-601-3133.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Lakehurst, NJ.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/71-Present.

Objectives: To train maintenance personnel to repair T58-GE-8B turbine engines.

Instruction: Lectures and practical exercises in T58-GE-8B intermediate maintenance, including engine systems familiarization, and engine inspection, disassembly, testing, repair, and reassembly techniques and procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine laboratory (3/74).

NV-1704-0022

A-6A AUTOMATIC FLIGHT CONTROL SYSTEM ORGANIZATIONAL MAINTENANCE

Course Number: None.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train maintenance personnel to maintain, test, and troubleshoot the A-6A automatic flight control system at the organizational maintenance level.

Instruction: Lectures and practical exercises in A-6A automatic flight control system organizational maintenance, including air data computer operation, general aircraft familiarization, introduction to automatic flight, automatic flight control actuators and signal flow location and functional operation, interlocks and line equipment check-out procedures, and system testing and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in automatic flight control maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in automatic flight control maintenance (3/74).

NV-1704-0023

A-4E/F/TA-4F AIRCRAFT MECHANIC ORGANIZATIONAL MAINTENANCE

Course Number: C-600-3719.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/73-Present.

Objectives: To train fleet maintenance personnel in A-4E/F/TA-4F aircraft organizational maintenance.

Instruction: Lectures and practical exercises in A-4E/F/TA-4F aircraft maintenance, including aircraft systems familiarization; component replacement procedures; support equipment use; and systems operation, inspection, maintenance, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aircraft organizational maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft organizational maintenance (3/74).

NV-1704-0024

J52-P408 ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: C-601-3138.

Location: Air Maintenance Training Detachment, Beaufort, SC; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/73-Present.

Objectives: To train fleet maintenance personnel to maintain and repair J52-P408 turbine engines.

Instruction: Lectures and practical exercises in turbine engine systems and inspection, disassembly, cleaning, repair, reassembly, and testing of all engine systems.

Credit Recommendation: In the vocational certificate category, credit in J52-P408 turbine engine maintenance and repair on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in J52-P408 turbine engine maintenance and repair on the basis of institutional evaluation (3/74).

NV-1704-0025

UH-1E T53-L-11 ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: None.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/70-Present.

Objectives: To train enlisted personnel to repair T53-L-ll shaft turbine engines.

Instruction: Lectures and practical exercises in engine disassembly, reassembly, inspection, and repair, and use of special tools.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine familiarization laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine familiarization laboratory (3/74).

NV-1704-0026

J85-GE-4 ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: None.

Location: Air Maintenance Training Detachment, Meridian, MS.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/69-Present.

Objectives: To train aviation maintenance personnel to maintain and repair J85-GE-4 engine systems.

Instruction: Lectures and practical exercises in J85-GE-4 engine systems, and support equipment familiarization; components; servicing; replacement; engine dismantling; and engine assembly.

Credit Recommendation: In the vocational certificate category, 3 semester hours in turbine engine familiarization laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in turbine engine familiarization laboratory (3/74).

NV-1704-0027

T58-GE-10 ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: C-601-3131.

Location: Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, New River, NC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/73-Present.

Objectives: To train maintenance personnel to maintain and repair T58-GE-10 engines.

Instruction: Practical training in the intermediate maintenance, disassembly, inspection, replacement, assembly, and testing of aircraft turbine engines.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine laboratory (3/74).

NV-1704-0029

T56-A-8/8A Engine and Aeroproducts A6441FN-248 Propeller Intermediate Maintenance
(T56-A-8/8A Engine and A6441FN-248 Propeller)

Course Number: C-601-3134; C-601-74.
Location: Air Maintenance Training Detachment, North Island, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 4/68–Present.
Objectives: To provide maintenance personnel with the knowledge and skill to perform intermediate maintenance on turboprop engine and propeller systems of E2/C2 type aircraft.
Instruction: Lectures and practical exercises in intermediate levels of maintenance including engine disassembly/reassembly; propeller and propeller systems maintenance and rigging, using E2/C2 type aircraft as training aids.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in advanced airframe/powerplant technician training (6/75).

NV-1704-0030

F/RF-4B/J Hydraulic Organizational Maintenance

Course Number: C-602-3837.
Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 3 weeks (120 hours).
Exhibit Dates: 5/71–Present.
Objectives: To train maintenance personnel in the servicing and maintenance of F/RF-4B/J aircraft hydraulic systems.
Instruction: Practical experience in maintenance and servicing of hydraulics and pneumatics, landing gear, and related systems; and utility, flight, and surface systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulic and pneumatic systems (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulic and pneumatic systems (3/74).

NV-1704-0032

CH-53 T-64-GE-413 Engine Intermediate Maintenance/Complete Engine Repair

Course Number: C-601-3444.
Location: Air Maintenance Training Detachment, Santa Ana, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 9/70–Present.
Objectives: To provide maintenance personnel with the latest information on modifications, servicing procedures, and maintenance applicable to the CH-53 T-64-GE-413 engine.
Instruction: Lectures and practical exercises in engine familiarization, engine maintenance and complete engine repair, and equipment and applicable maintenance procedures.
Credit Recommendation: In the vocational certificate category, credit in helicopter engine repair on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in helicopter engine repair on the basis of institutional evaluation (3/74).

NV-1704-0033

TF30-P-6 Intermediate Maintenance/Complete Engine Repair

Course Number: None.
Location: Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Lemoore, CA.
Length: 4 weeks (160 hours).
Exhibit Dates: 7/68–Present.
Objectives: To train maintenance personnel in the techniques, modifications, and complete engine repairs applicable to the TF30-P-6 power plant.
Instruction: Lectures and practical exercises in power plant sections, engine disassembly, engine assembly, and complete engine repairs.
Credit Recommendation: In the vocational certificate category, 3 semester hours in turbine engine repair (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine repair (3/74).

NV-1704-0034

E1B MH-67 Automatic Flight Control System Intermediate Maintenance

Course Number: None.
Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.
Length: 2 weeks (80 hours).
Exhibit Dates: 9/68–Present.
Objectives: To train maintenance personnel in the procedures for maintaining, repairing, and functionally testing the MH-67 automatic flight control system.
Instruction: Lectures and practical exercises in MH-67 autopilots, intermediate maintenance of components and circuitry, testing, and troubleshooting.
Credit Recommendation: In the vocational certificate category, 2 semester hours in autopilot electronics familiarization laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in autopilot electronics familiarization laboratory (3/74).

NV-1704-0035

A-4 Automatic Flight Control System Organizational Maintenance

Course Number: C-602-3724.
Location: Air Maintenance Training Detachment, Kingsville, TX; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.
Length: 2 weeks (80 hours).
Exhibit Dates: 2/72–Present.
Objectives: To train enlisted personnel to repair the automatic flight control system of the A-4 aircraft.
Instruction: Lectures and practical exercises including the theory of operations of automatic flight control system components and control circuits, line testing, and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, credit in A-4 automatic flight control system organizational maintenance on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, credit in A-4 automatic flight control system organizational maintenance on the basis of institutional evaluation (2/74).

NV-1704-0036

E-2A Flight Technician Organizational Level Maintenance, No. 4

Course Number: Not available.
Location: Air Maintenance Training Detachment, North Island, CA.
Length: 8 weeks (320 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train radar operators in the utilization of equipment to assess performance, isolate faults, and perform in-flight adjustments and maintenance on radar systems.
Instruction: Lectures and practical exercises in radar detection subsystems, navigation subsystems, communication subsystems, and control and display subsystems of E-2A aircraft.
Credit Recommendation: In the vocational certificate category, 5 semester hours in in-flight maintenance (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in in-flight maintenance (3/74).

NV-1704-0037

J60-P-3A/6 Engine Intermediate Maintenance/Complete Engine Repair

Course Number: Not available.
Location: Air Maintenance Training Detachment, Meridian, MS.
Length: 2 weeks (64 hours).
Exhibit Dates: 1/71–Present.
Objectives: To provide maintenance personnel with instruction in complete engine repair procedures for the J60-P-3A/6 engine.
Instruction: Lectures and practical exercises in basic engine and systems familiarization; engine inspection repair procedures, including disassembly, inspection, and assembly techniques; and care of inactive engines.
Credit Recommendation: In the vocational certificate category, credit in jet engine intermediate maintenance/repair on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in jet engine intermediate maintenance/repair on the basis of institutional evaluation (3/74).

NV-1704-0038

RA-5C Avionics Officers/Supervisors Familiarization

Course Number: None.
Location: Air Maintenance Training Detachment, Sanford, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 11/72–Present.
Objectives: To train senior noncommissioned officers in the various avionics systems associated with the RA-5C weapons system.
Instruction: Lectures and practical exercises in location, general operating characteristics, and maintenance requirements for RA-5C electrical and indicating systems; flight and instrumentation electronics; fire control systems; electronics and electronic countermeasures systems; and reconnaissance systems.
Credit Recommendation: In the vocational certificate category, credit in avionics/electronics familiarization on the basis of institutional evaluation (3/74); in

the lower-division baccalaureate/associate degree category, credit in avionics/electronics familiarization on the basis of institutional evaluation (3/74).

NV-1704-0039

P-3 AIRCRAFT FAMILIARIZATION, NO. 2
(P-3 Aircraft Familiarization (Pilots))

Course Number: C-2A-3531.

Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.

Length: 3 weeks (112 hours).

Exhibit Dates: 1/68–Present.

Objectives: To familiarize pilots with the operation and systems function of multiengine turboprop aircraft.

Instruction: Lectures and practical experience in power plant, airframes, furnishings, electrical and emergency systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aircraft familiarization (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft familiarization (3/74).

NV-1704-0040

1. RA-5C SURVIVAL AND ENVIRONMENTAL SYSTEMS ORGANIZATIONAL MAINTENANCE
2. RA-5C SURVIVAL AND ENVIRONMENTAL SYSTEMS

Course Number: None.

Location: *Version 1:* Air Maintenance Training Detachment, Albany, GA. *Version 2:* Air Maintenance Training Detachment, Sanford, FL.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 5 weeks (200 hours).

Exhibit Dates: *Version 1:* 3/71–Present. *Version 2:* 1/68–2/71.

Objectives: To train maintenance personnel to maintain and repair RA-5C survival and environmental systems.

Instruction: Practical experience in operation, maintenance, and servicing of RA-5C canopy, ejection seat, oxygen and heating/ventilating systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in survival and environmental systems maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in survival and environmental systems maintenance (3/74). *Version 2:* In the vocational certificate category, 2 semester hours in survival and environmental systems maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in survival and environmental systems maintenance (3/74).

NV-1704-0041

RA-5C STRUCTURES AND HYDRAULIC SUBSYSTEMS ORGANIZATIONAL MAINTENANCE
(RA-5C Structures and Hydraulic Subsystems)

Course Number: None.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 5–7 weeks (200–280 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to inspect and repair RA-5C aircraft structures and hydraulic systems.

Instruction: Practical training in inspection, troubleshooting, and repair of RA-5C structures and hydraulic power, landing gear, arresting gear, wing, tail, folding, pneumatic power, and lift control systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in RA-5C structures and hydraulic system maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in RA-5C structures and hydraulic system maintenance (3/74).

NV-1704-0042

AVIATION BOATSWAIN'S MATE E (AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT), CLASS A
(Aviation Boatswain's Mate E (Equipments), Class A)

Course Number: C-680-2012.

Location: Air Technical Training Center, Lakehurst, NJ; Air Technical Training Center, Philadelphia, PA.

Length: 10 weeks (380–384 hours).

Exhibit Dates: 6/65–Present.

Objectives: To train enlisted personnel in the operation of aircraft launch and recovery equipment aboard aircraft carriers.

Instruction: Lectures and practical exercises in aviation fundamentals, aircraft carrier fire fighting, hydropneumatic catapults, and arresting gear, barrier, and optical systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1704-0043

UH-1E AIRFRAME AND RELATED SYSTEMS ORGANIZATIONAL MAINTENANCE
(UH-1E Airframe and Related Systems Intermediate Maintenance)

Course Number: C-600-3341.

Location: Air Maintenance Training Detachment, Ellyson Field, FL; Air Maintenance Training Detachment, Camp Pendleton, CA.

Length: 2–4 weeks (80–160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted prsonnel in the operation, inspection, and repair of airframe and related systems of the UH-1E aircraft.

Instruction: Practical training in maintenance and repair of airframe, landing gear, power train, flight control, rotor, hydraulic and utility systems, and design, construction, furnishings and assembly of utility systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in aircraft specialized familiarization (3/74).

NV-1704-0044

TARGET DRONE, CLASS C

Course Number: None.

Location: Air Technical Training Unit, El Centro, CA.

Length: 9 weeks (360 hours).

Exhibit Dates: 1/55–12/68.

Objectives: To train enlisted personnel in the operation, maintenance, overhaul, and repair of drone aircraft.

Instruction: Practical experience in flight operations, safety procedures, power plant and electronic maintenance, and fueling.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1704-0045

RA-5C POWER PLANTS AND RELATED SYSTEMS ORGANIZATIONAL MAINTENANCE
(RA-5C Power Plants and Related Systems)

Course Number: C-601-3741.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train fleet maintenance personnel to inspect, test, and repair RA-5C power plants and related systems.

Instruction: Lectures and practical exercises in the basic J-79 engine, aircraft fuel systems, power plants and component systems; inspections, tests, rigging procedures, and maintenance of RA-5C power plants and systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant systems maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant systems maintenance (3/74).

NV-1704-0046

DOUGLAS MODEL D-704 AND SARGENT-FLETCHER MODEL 31-300 AIR REFUELING STORES ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3013.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 3 weeks (120 hours).

Exhibit Dates: 7/70–Present.

Objectives: To train maintenance personnel to maintain and repair Douglas and Sargent-Fletcher air refueling stores.

Instruction: Lectures and practical exercises in inspection, disassembly, cleaning, repair, and reassembly of the Douglas Model D-704 and Sargent-Fletcher Model 31-300 air refueling stores systems, components, and equipment.

Credit Recommendation: In the vocational certificate category, credit in air refueling stores maintenance on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in air refueling stores maintenance on the basis of institutional evaluation (3/74).

NV-1704-0047

SH-3 AIRFRAMES AND HYDRAULIC SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3396.

Location: Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3 weeks (109 hours).

Exhibit Dates: 1/73–Present.

Objectives: To train fleet maintenance personnel to maintain and repair SH-3 helicopter airframe and hydraulic systems.

Instruction: Lectures and practical exercises in removal, replacement, adjustment, and testing of components, and troubleshooting and repair of airframe and hydraulic systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in airframe and hydraulic maintenance (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in airframe and hydraulic maintenance (3/74).

NV-1704-0048

P-3 Flight Engineer System, No. 6

Course Number: C-050-3531.
Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.
Length: 5 weeks (200 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train flight crews in P-3 system and subsystem operations, in-flight maintenance, and procedures.
Instruction: Lectures and practical exercises in aircraft and electrical systems; power plant and related systems; hydraulic, structure, and pressurization systems; radio and navigation aids; autopilot; and emergency systems.
Credit Recommendation: In the vocational certificate category, credit in P-3 flight engineering on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in P-3 flight engineering on the basis of institutional evaluation (3/74).

NV-1704-0049

H-53, T-64-GE-6/6A Intermediate Maintenance/Complete Engine Repair

Course Number: None.
Location: Air Maintenance Training Detachment, Santa Ana, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 7/68–Present.
Objectives: To train maintenance personnel to maintain and repair T-64-GE-6 engines at the intermediate level.
Instruction: Lectures and practical exercises in engine familiarization, including torque, compressor, combustion, turbine, and exhaust frame accessory sections; engine related systems, including air flow utilization, lubrication, fuel system, and electrical systems; and engine maintenance and repair.
Credit Recommendation: In the vocational certificate category, 2 semester hours in intermediate maintenance/complete engine repair (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in intermediate maintenance/complete engine repair (3/74).

NV-1704-0050

P-3 Hydraulics and Flight Controls System Maintenance, No. 10

Course Number: Not available.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train maintenance personnel to maintain and repair P-3 aircraft hydraulic and flight control systems at the intermediate and organizational levels.
Instruction: Lectures and practical exercises in diagnosis, troubleshooting, maintenance, and servicing of the P-3 hydraulic power, auxiliary power, landing gear systems, nosewheel steering, brake systems, primary flight controls, flap systems, and tab booster and rudder boost systems.
Credit Recommendation: In the vocational certificate category, credit in P-3 hydraulic and flight control system maintenance on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in P-3 hydraulic and flight control system maintenance on the basis of institutional evaluation (3/74).

NV-1704-0051

QH-50C Airframe and Related Systems Intermediate Maintenance

Course Number: None.
Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, North Island, CA.
Length: 3 weeks (128 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train maintenance personnel to maintain and repair QH-50C airframes and related systems.
Instruction: Lectures and practical exercises in QH-50C aircraft maintenance, including airframe and engine familiarization; avionics and target control; handling and special support equipment maintenance; and airframe, power plant, and related systems inspection, maintenance, repair, and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, credit in aircraft maintenance on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in aircraft maintenance on the basis of institutional evaluation (3/74).

NV-1704-0052

QH-50D Airframe, Powerplant and Related Systems Organizational Maintenance
(QH-50D Airframe and Related System Intermediate Maintenance)

Course Number: None.
Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, North Island, CA.
Length: 3 weeks (128–136 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train maintenance personnel to maintain and repair QH-50D drone airframes and related systems.
Instruction: Lectures and practical exercises in theory of flight, QH-50D helicopter fundamentals, DASH weapon system operation, aviation publications and forms familiarization, deck handling and special support equipment operation and maintenance, safety procedures, and QH-50D aircraft airframe and engine maintenance.
Credit Recommendation: In the vocational certificate category, 2 semester hours in airframe and related systems maintenance (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in airframe and related systems maintenance (3/74).

NV-1704-0053

P-3 Second Mechanics Systems

Course Number: C-601-3534.
Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.
Length: 5 weeks (200 hours).
Exhibit Dates: 2/73–Present.
Objectives: To train P-3 flight crew second mechanics to repair and service aircraft systems and subsystems.
Instruction: Lectures and practical exercises in electrical and related systems, power plant and related systems, and airframe systems of the P-3 aircraft.
Credit Recommendation: In the vocational certificate category, 3 semester hours in airframe and power plant systems (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in airframe and power plant systems (3/74).

NV-1704-0054

E-2A Aircraft Familiarization (Pilots)

Course Number: C-00-3471.
Location: Air Maintenance Training Detachment, San Diego, CA.
Length: 2 weeks (72 hours).
Exhibit Dates: 7/71–Present.
Objectives: To familiarize pilots and prospective pilots with the E-2A aircraft, and the function and operation of its systems.
Instruction: Lectures on, and practical exercises with, E-2A aircraft, including power plant and related systems, and airframe, hydraulics, environmental, and avionic systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in light aircraft familiarization (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in light aircraft familiarization (2/74).

NV-1704-0055

J79-GE-8/10 Engine Intermediate Maintenance
(J79-GE-8/10 Intermediate Maintenance)

Course Number: C-601-3129.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 3 weeks (120 hours).
Exhibit Dates: 12/67–Present.
Objectives: To train technicians to repair J-79 turbine engines.
Instruction: *All Versions:* Practical experience in disassembly, repair, assembly, and testing of J-79 turbine engines. *Version 2:* Practical experience in components maintenance.
Credit Recommendation: In the vocational certificate category, 3 semester hours in turbine engine repair (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in turbine engine repair (2/74).

NV-1704-0056

F-4B/J Airframe and Hydraulic Systems Organizational Maintenance
(F-4B/J Airframe and Hydraulic Systems Maintenance)

Course Number: C-602-3807.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 3–4 weeks (120–136 hours).
Exhibit Dates: 10/67–Present.
Objectives: To train maintenance personnel to repair F-4B/J aircraft.
Instruction: Lectures and practical exercises in F-4B/J maintenance procedures, including airframe construction, corrosion control, hydraulic and high-pressure pneumatic systems maintenance, and utility hy-

draulic subsystems and primary surface controls maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in airframe and hydraulic systems maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in airframe and hydraulic systems maintenance (2/74).

NV-1704-0057

UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance

Course Number: C-602-3386.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 8/71–Present.

Objectives: To train maintenance personnel in the operation, maintenance, and servicing of UH-2C aircraft subsystems.

Instruction: Lectures and practical exercises in functional and operational theory of UH-2C airframes, hydraulics, flight control and rotor systems; and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft maintenance (2/74).

NV-1704-0058

HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance

Course Number: C-602-3393.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (72 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train enlisted personnel to operate, maintain, and service HH-2D/SH-2D airframe, hydraulic, and flight control systems.

Instruction: Troubleshooting, repairing, and servicing of HH-2D/SH-2D systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter systems maintenance and repair (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter systems maintenance and repair (2/74).

NV-1704-0059

Basic Helicopter, Class C

Course Number: C-600-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: 6–8 weeks (236–312 hours).

Exhibit Dates: 10/65–Present.

Objectives: To train selected Navy and Marine Corps enlisted personnel to repair helicopters.

Instruction: Lectures and practical experience in basic helicopter flight, turboshaft power plant and transmission, flight control systems, preflight and postflight inspections, troubleshooting, safety regulations, single- and tandem-rotor helicopters.

Credit Recommendation: In the vocational certificate category, credit in basic helicopter theory and maintenance (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic helicopter theory and maintenance (2/74); in the upper-division baccalaureate category, 2 semester hours in basic helicopter theory and maintenance (12/68).

NV-1704-0060

CH-46A Rotors and Related Systems Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Jacksonville, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (112 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel in the mechanics of rotor systems.

Instruction: Lectures and practical exercises in organizational maintenance, troubleshooting, flight control, and maintenance of utility systems and components.

Credit Recommendation: In the vocational certificate category, 2 semester hours in rotor systems maintenance (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in rotor systems maintenance (2/74).

NV-1704-0061

UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Ream Field, CA.

Length: 3 weeks (104 hours).

Exhibit Dates: 1/68–Present.

Objectives: To provide maintenance personnel with training in the latest servicing and repair procedures for T-58 helicopters.

Instruction: Lectures and practical exercises in the maintenance of helicopter power plant, transmission, fuel, rotor, and related systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in rotorcraft turbine engine maintenance and repair (2/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in rotorcraft turbine engine maintenance and repair (2/74).

NV-1704-0062

H-53 Rotor and Related Systems Organizational Maintenance

Course Number: C-601-3441.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to repair the H-53 rotor system and its components.

Instruction: Lectures and practical exercises in rotor system management and maintenance management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in helicopter organizational maintenance (2/74).

NV-1704-0063

H-53 Hydraulic Systems Organizational Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel in the latest maintenance and service procedures for H-53 hydraulic systems.

Instruction: Lectures and practical exercises in the fundamentals of operation and maintenance of the basic hydraulic, utility hydraulic, flight control hydraulic, rotor brake, rotor damper, cargo winch, and engine start systems.

Credit Recommendation: In the vocational certificate category, credit in CH-53 hydraulic system organizational maintenance on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, credit in CH-53 hydraulic system organizational maintenance on the basis of institutional evaluation (2/74).

NV-1704-0064

UH34D Airframe, Hydraulics and Flight Controls

Course Number: None.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to repair and service UH34D helicopter airframe, hydraulics, and flight control systems.

Instruction: Lectures and practical exercises in the maintenance, repair, and troubleshooting of air frame structure and power-transmission, hydraulic, and flight control systems.

Credit Recommendation: In the vocational certificate category, credit in aircraft, hydraulic, and flight control system maintenance on the basis of institutional evaluation (2/74); in the lower-division baccalaureate/associate degree category, credit in aircraft, hydraulic, and flight control system maintenance on the basis of institutional evaluation (2/74).

NV-1704-0065

A-4M Aircraft Mechanics

Course Number: C-600-3718.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/72–Present.

Objectives: To train aircraft maintenance personnel to perform organizational maintenance on the A-4M aircraft.

Instruction: Lectures and practical exercises in the maintenance of A-4M aircraft, including airframe systems, power plants and related systems; engine trim and inspection procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic aircraft maintenance (2/74).

NV-1704-0066

S-2D/E Airframes and Hydraulics Systems Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/67–Present.

Objectives: To provide maintenance personnel with instruction on the maintenance of S-2D/E airframes and hydraulics systems.

Instruction: Lectures and practical exercises on the operation of hydraulic power units, alighting gear, hydraulically operated flight controls, accessory systems, maintenance of airframes, and inspection procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in airframe and hydraulic fundamentals laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in airframe and hydraulic fundamentals laboratory (3/74).

NV-1704-0067

P-3 FLIGHT ENGINEERS OPERATIONAL MAINTENANCE, NO. 5

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train flight crewmen in total systems and subsystems operation and in-flight maintenance procedures.

Instruction: Practical experience in operation and maintenance of electrical, autopilot, navigational, airframe structures, hydraulic, flight control, air conditioning and pressurization, utility, power plant, armament, and electronic systems.

Credit Recommendation: In the vocational certificate category, credit in D-3 flight engineering on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in D-3 flight engineering on the basis of institutional evaluation (3/74).

NV-1704-0068

1. AVIATION ELECTRICIAN'S MATE, CLASS A
2. AVIATION ELECTRICIAN'S MATE, CLASS A
   (Aviation Electrician's Mate I (Instrument), Class A)
3. AVIATION ELECTRICIAN'S MATE I (INSTRUMENT), CLASS A
   (Aviation Electrician Conversion)

Course Number: C-602-2012.

Location: Air Technical Training Center, Memphis, TN; Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 19 weeks (478 hours). *Version 2:* 22 weeks (872–880 hours). *Version 3:* 15 weeks (600 hours).

Exhibit Dates: *Version 1:* 4/74–Present. *Version 2:* 9/59–3/74. *Version 3:* 4/57–8/59.

Objectives: To train enlisted personnel in the maintenance of aircraft instruments and electrical systems.

Instruction: *All Versions:* Lectures and practical exercises in DC and AC circuits, vacuum tubes, rectifiers, filters, amplifiers, basic test instruments, electrical indicating systems, fuel quantity systems, compasses, automatic pilots, instrument checks and troubleshooting. *Version 2:* Includes basic mathematics, hand tools for circuit fabrication, synchros, basic transistor theory, computer fundamentals, AC voltage regulators, AC power distribution, inverters ignition systems, and auxiliary power plants.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electronics or circuit theory and 2 in electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or circuit theory and 1 in electronics laboratory (6/75); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/75). *Version 2:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1704-0069

RA-5C ELECTRICAL AND INDICATING SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3745.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/69–Present.

Objectives: To train maintenance personnel to repair aircraft electrical and indicating systems.

Instruction: Lectures and practical exercises in the organizational maintenance of aircraft electrical and indicating systems, including electrical power systems, lighting and radome fold systems, engine instruments and control systems, and hydraulic and pneumatic power systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74).

NV-1704-0070

AVIATION ELECTRICIAN'S MATE M (ELECTRICIAN), CLASS A
(Aviation Electrician Conversion)

Course Number: None.

Location: Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 22 weeks (880 hours). *Version 2:* 15–19 weeks (600–732 hours).

Exhibit Dates: *Version 1:* 1/59–12/68. *Version 2:* 4/57–12/58.

Objectives: To train enlisted personnel to inspect, test, and repair aircraft instruments, and electrical systems.

Instruction: *All Versions:* Lectures and practical exercises in fundamentals of AC and DC circuits, vacuum tubes, rectifiers, filters, amplifiers, basic test instruments, DC and AC machinery and systems, electrical tests and troubleshooting, electrical components, wiring diagrams, and lighting circuits. *Version 1:* Includes airman training, basic math and physics, and hand tools and soldering.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity for electronics majors, 4 for nonmajors (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity, and credit in electrical laboratory on the basis of institutional examination (12/68). *Version 2:* In the vocational certificate category, 9 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity for electronics majors, 6 for nonmajors (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1704-0071

KC-130F ELECTRICAL SYSTEMS ORGANIZATIONAL MAINTENANCE
(KC-130F Electrical Systems and Circuits Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain and operate the KC-130F aircraft's electrical and instrument systems.

Instruction: Lectures and practical exercises in the maintenance of electrical and instrument systems applicable to the KC-130F aircraft, including AC and DC power distribution, electrical system, utility circuits, components, power plant and propeller circuits, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical systems (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical systems (3/74).

NV-1704-0072

P-3 ELECTRICAL SYSTEMS INTERMEDIATE MAINTENANCE

Course Number: C-102-3560.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train enlisted personnel to maintain, operate, and service aircraft electrical systems at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the P-3 aircraft electrical systems, including, lighting, indicators, propeller synchrophasing system, generators, voltage regulators, oscilloscope, and controls.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

NV-1704-0073

P-3 ELECTRICAL SYSTEM ORGANIZATIONAL MAINTENANCE
(P-3 Electrical System Maintenance, No. 12)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 4–5 weeks (160–200 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to operate, maintain, and service aircraft electrical systems.

Instruction: Lectures and practical exercises in aircraft electrical systems operation, maintenance, and servicing, including power supplies, power distribution, lighting, starters, hydraulic controls, instruments, and flight controls circuit analysis and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

NV-1704-0074

F-4J Communication Navigation Identification (CNI) Line Troubleshooting Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 6 weeks (160 hours).
Exhibit Dates: 8/70–Present.
Objectives: To train maintenance personnel to perform line maintenance on F-4J CNI systems.
Instruction: Lectures and laboratories in system familiarization, communications, navigation systems, use of associated test equipment, and line maintenance.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1704-0075

RA-5C Communication Navigation Identification (CNI) and DECM Organizational Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Sanford, FL.
Length: 3 weeks (120 hours).
Exhibit Dates: 9/68–Present.
Objectives: To train fleet maintenance personnel to maintain CNI and DECM systems and related test sets.
Instruction: Lectures and practical exercises in communication, navigation, and identification systems familiarization; CNI organizational maintenance; and DECM organizational maintenance.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1704-0076

F-4B Communication Navigation Identification (CNI) Line Troubleshooting Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 4 weeks (160 hours).
Exhibit Dates: 3/71–Present.
Objectives: To train maintenance personnel to operate and maintain the F-4B CNI line systems.
Instruction: Lectures and practical exercises in the operation and maintenance of the F-4B CNI line systems, including block-diagram analysis, components, power supply, transceiver, navigation set components and navigational computer, basic IFF/SIF theory, associated transponder and altimeter sets, introduction to line maintenance applications, and system check-out.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1704-0077

CH-46A Electrical and Instrument Systems

Course Number: Not available.
Location: Air Maintenance Training Detachment, Jacksonville, NC; Air Maintenance Training Detachment, Santa Ana, CA.
Length: 4 weeks (160 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train maintenance personnel to operate and maintain the CH-46A electrical and instrument systems.
Instruction: Lectures and practical exercises in the operation and maintenance of the CH-46A electrical and instrument systems, including main generating system, auxiliary and DC systems of electrical power supply, starting and control systems, utility electric systems (light, fire extinguisher, wipers, pedal, heating and ventilation, brake, hydraulic, and ice protection), and instruments and indication systems analyses.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1704-0078

A-6A Maintenance Supervisors Familiarization

Course Number: C-000-3763.
Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, Whidbey Island, WA.
Length: 2 weeks (80 hours).
Exhibit Dates: 8/70–Present.
Objectives: To familiarize supervisory personnel with the systems of the A-6A aircraft.
Instruction: Lectures and practical exercises in the operation of the A-6A aircraft, including system familiarization, analysis of hydraulic power and distribution, power plant and fuel systems, environmental system, general avionics systems, and navigational and attack systems; and planned maintenance techniques.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0079

A-7 Electrical and Instrument Systems Organizational Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/71–Present.
Objectives: To train maintenance personnel to maintain and operate the electrical and instrument systems of the A-7 aircraft.
Instruction: Lectures and practical exercises in the maintenance and operation of the electrical and instrument systems of the A-7 aircraft, including power supply and distribution, engine and related circuitry, aircraft fuel circuits, electrically controlled hydraulic systems, lighting circuits, approach-attitude indication and compensation, air data computer, and instrumentation.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (4/74).

NV-1704-0080

A-7E Electrical and Instrument Systems Organizational Maintenance

Course Number: C-602-3791.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 7/70–Present.
Objectives: To train maintenance personnel to operate and maintain the electrical and instrument systems of the A-7E aircraft.
Instruction: Lectures and practical exercises in power distribution and electrical power supplies, aircraft instrument and lighting systems, electrohydraulic and utility systems, and power plant-related systems.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (4/74).

NV-1704-0081

E-2A Aviation Electrician Organizational Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, North Island, CA.
Length: 4 weeks (160 hours).
Exhibit Dates: 4/68–Present.
Objectives: To train aviation electricians to troubleshoot, repair, and maintain the electrical systems of E-2A aircraft.
Instruction: Lectures and practical exercises in the troubleshooting, repair, and maintenance of the electrical systems of E-2A aircraft, including AC and DC power distribution systems, motors and generators, limited electronic circuit theory, utility and environmental systems, flight control systems, engine electric systems, automatic flight control system operation, pitch feel system, maximum rudder system, air data computer, and compass and inertial navigation systems.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (4/74).

NV-1704-0082

SP-2H Systems Familiarization, Plane Captains

Course Number: Not available.
Location: Air Maintenance Training Detachment, Jacksonville, FL.
Length: 5 weeks (192 hours).
Exhibit Dates: 2/68–Present.
Objectives: To train plane captains to operate SP-2H aircraft systems.
Instruction: Lectures and practical exercises in the operation of SP-2H aircraft systems, including DC electrical distribution system, power plants and related systems assemblies and components, engine analysis of specific equipment, hydraulics and airframes, flight control, AC systems, engine starter and fire detection, propeller control system, and armament systems operation.
Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0083

SH-3A Electrical Systems Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain and service the electrical systems of the SH-3A helicopter.

Instruction: Lectures and practical exercises in the maintenance of the electrical systems of the SH-3A helicopter, including AC and DC power systems components and analysis, power plant systems, hydraulic systems, blade fold system, fuel systems, utility systems, and miscellaneous systems operation and testing.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0084

A-7 Armament Systems Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Lemoore, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train maintenance personnel to operate and maintain the A-7 armament system.

Instruction: Lectures and practical exercises in the operation and maintenance of the A-7 armament system, including fuselage stations, mechanical and electrical instruction, wing pylons and associated equipment assembly and installation, armament systems control and sequencing, electrical fuzing system, internal gun system components, and testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0085

A-6A Environmental, Escape and Survival Systems Organizational Maintenance

Course Number: C-602-3763.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel to operate and maintain the environmental, escape, and survival systems of the A-6A aircraft.

Instruction: Lectures and practical exercises in general aircraft familiarization; inspections, trouble shooting procedures, and maintenance of escape and survival systems, environmental control systems, and oxygen systems; and use of special tools and ground support equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0086

S-2D/E Electrical and Instruments Maintenance, No. 6

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train maintenance personnel to maintain and operate electrical and instrument systems of S-2D/E equipment.

Instruction: Lectures and practical exercises in the maintenance and operation of electrical and instrument systems of S-2D/E equipment, including components, operation, and troubleshooting of power supply, engine controls and accessories, structural control, heating and de-icing, fuel control, and light and instrument systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0087

Aviation Structural Mechanic H (Hydraulics), Class B

Course Number: C-602-2018.

Location: Air Technical Training Center, Memphis, Millington, TN.

Length: 12–13 weeks (488–504 hours).

Exhibit Dates: 10/65–Present.

Objectives: To train personnel to perform as aviation hydraulic systems mechanics.

Instruction: Lectures and practical exercises in aircraft repair, including utilization and interpretation of schematic drawings, fundamentals of electricity, technical publications, maintenance management, inspection procedures, corrosion control, aircraft hydraulics, and related maintenance.

Credit Recommendation: In the vocational certificate category, 10 semester hours in aircraft hydraulic systems mechanics (6/75); in the lower-division baccalaureate/associate degree category, 5 semester hours in aircraft hydraulic systems mechanics (6/75).

NV-1704-0088

A-6A Electrical Systems Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel with knowledge of transistors to test, troubleshoot and repair electrical and instrument systems of A-6A aircraft.

Instruction: Lectures and practical exercises in the testing, troubleshooting and repair of electrical and instrument systems of A-6A aircraft, including description, operation and components of AC power supply and control, AC/DC power distribution, emergency electrical power, constant speed drive/starter and engine control, fuel, auxiliary instrument, lighting, and remote indication compass systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical or electronics laboratory (4/74).

NV-1704-0089

P-3C Integrated Electrical Systems Organizational Maintenance

Course Number: C-602-3571.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel who are familiar with P-3 aircraft systems to inspect, operate, repair, and replace the assemblies and units of the P-3C electrical systems, ASN-84 inertial navigational system, and ASW-31 autopilot.

Instruction: Lectures and practical exercises in the inspection, operation, repair, and replacement of the assemblies and units of the P-3C electrical systems, ASN-84 inertial navigation system, and ASW-31 autopilot, including electrical power, lighting, and engine controls; fuel, oil, propeller, and fire detection systems; instruments, hydraulics; landing gear; ice control systems and miscellaneous circuits; and specific equipment description and component analysis.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0090

UH-2C Electrical System Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2–3 weeks (80–120 hours).

Exhibit Dates: 8/68–Present.

Objectives: To train maintenance personnel to maintain and service electrical systems and components of UH-2 helicopters.

Instruction: Lectures and practical exercises in the maintenance of electrical systems and components of UH-2 helicopters, including components and operation of DC and AC power supply, lighting systems, power plant systems, utility system, and engine and flight instruments; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0091

UH-2A/B Electrical System Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Lakehurst, NJ.

Length: 3 weeks (100–104 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train fleet maintenance personnel who have aviation electrical experience and knowledge of transistors to operate and maintain the electrical components of the UH-2A/B helicopter.

Instruction: Lectures and practical exercises in the operation and maintenance of the electrical components of the UH-2A/B helicopter, including AC and DC power supply, lighting systems, related power plant systems components and troubleshooting, utility systems operation, engine and flight instruments, and miscellaneous systems analyses.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0092

F-4B Electrical Systems Organizational Maintenance

(F-4B Aircraft Electrical System Organizational Maintenance)

Course Number: C-602-3808.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 7–8 weeks (280–320 hours).

Exhibit Dates: 10/67–Present.

Objectives: To train enlisted personnel to operate and maintain F-4B aircraft electrical systems.

Instruction: Lectures and practical exercises in the operation and maintenance of F-4B aircraft electrical systems, including functional analysis, systems integration, analysis and components of the automatic flight control system, air data computer set, loft bomb release computer set, power-generating system, approach power compensator system, fuel system, and test equipment for electrical and instrument systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0093

E-2A Electrical and Instruments Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train aviation electricians to troubleshoot, repair, and maintain E-2A aircraft electrical and instrument systems.

Instruction: Lectures and practical exercises in the troubleshooting, repair, and maintenance of the electrical and instrument systems incorporated in E-2A aircraft, including AC and DC power systems; utility, environmental, instruments, and miscellaneous systems components and operation; flight controls and related systems; and engine electrical and related systems and subsystems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0094

F-4J Electrical Systems Organizational Maintenance

(F-4J Aircraft Electrical System Organizational Maintenance)

Course Number: C-602-3815.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 7–9 weeks (280–376 hours).

Exhibit Dates: 10/67–Present.

Objectives: To train enlisted personnel to maintain the electrical systems in the F-4J aircraft.

Instruction: Lectures and practical exercises in the maintenance of the electrical systems in the F-4J aircraft, including functional analysis, operation, systems integration and planned maintenance procedures on the electrical and instrument systems, automatic flight control system, air data computer set, vertical flight reference set, attitude reference bombing computer set, power generating system, approach power compensator system, and data link system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0095

OV-10A Electrical Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 8/68–Present.

Objectives: To train maintenance personnel to operate, troubleshoot, and maintain electrical systems of the OV-10A aircraft.

Instruction: Lectures and practical exercises in the operation, troubleshooting, and maintenance of the electrical systems of the OV-10A aircraft, including DC and AC power systems (sources and distribution), lighting systems, instrumentation, power plant electrical systems, hydraulic and control surface systems, and miscellaneous electrical systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0096

SH-3 Automatic Stabilization Equipment Organizational Maintenance

Course Number: C-601-3398.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Quonset Point, RI.

Length: 3 weeks (104–120 hours).

Exhibit Dates: 9/69–Present.

Objectives: To train maintenance personnel to maintain the SH-3 helicopter's automatic stabilization equipment.

Instruction: Lectures and practical exercises in the maintenance of the SH-3 helicopter's automatic stabilization equipment, including flight theory, flight controls, primary and auxiliary hydraulic systems and servos, power control, pitch channel (signal path, vertical gyros, monitor panel, lag-amplifier, and line test set), yaw channel and synchronizer, collective channel, hover indicator, cyclic and collective coupler system and components, and troubleshooting and test procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0097

A-6/KA-6D Electrical Power Systems Intermediate Maintenance

Course Number: C-602-3762.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train maintenance personnel to test and repair the electrical power generating system of the A-6A/KA-6D aircraft.

Instruction: Lectures and practical exercises in the testing and repair of the electrical power generating system of the A-6A/KA-6D aircraft, including review of electrical theory, operation of AC power supply and control system components, emergency electrical power system, and troubleshooting procedures..

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0098

A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational)

Course Number: C-602-0050.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train maintenance personnel who are familiar with A-4 systems and transistor fundamentals to operate and maintain the AN/AJB-3A bombing system and the remote standby attitude-indicating systems.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/AJB-3A bombing system and the remote standby attitude-indicating systems, including operation of the displacement gyroscope, attitude-direction indicator, compass adapter, bomb release computer, and power supply; system analysis (circuits and channels), boresighting and compass swinging, line testing and troubleshooting procedures, and operation and testing of the remote standby indicating system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0099

RA-5C Electrical and Indicating Systems (Intermediate Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/67–Present.

Objectives: To train maintenance personnel who are familiar with RA-5C aircraft systems to operate and maintain the RA-5C electrical and indicating systems at the intermediate level.

Instruction: Lectures and practical exercises in the operation and maintenance of the RA-5C aircraft electrical and indicating systems, including power control; generators; transformers; DC power supply; emergency power; lighting and radome fold system components; engine instruments and control systems; fuel, hydraulic, and pneumatic power systems; heating and vent operation; and pressurization and air-conditioning systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0100

A-6A Electrical Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train maintenance personnel who have backgrounds in basic transistors to maintain, test, and troubleshoot the

A-6A electrical, instrument, and automatic flight control systems.

Instruction: Lectures and practical exercises in the maintenance, testing, and troubleshooting of the A-6A electrical, instrument, and automatic flight control systems, including power supply and control system components and operation (AC and DC systems), fuel management and indicating system; auxiliary systems components, operation and testing; aircraft instrument, environmental control, and compass systems; automatic flight principles, air data computer block diagram and operation, signal flow, interlocks and check-out procedures, and use of test equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0101

P-3 Integrated Electrical System Organizational Maintenance

Course Number: C-602-3535.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel who are familiar with P-3 aircraft systems and transistor fundamentals to operate, test, and maintain the P-3 integrated electrical system.

Instruction: Lectures and practical exercises in the operation, testing, and maintenance of the P-3 integrated electrical system, including power generation and distribution, control panel, automatic flight control system, attitude-heading reference system, navigational computer operation, instruments and hydraulics, fuel, oil, and propeller systems, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0102

A-4M Electrical Systems Organizational Maintenance

Course Number: C-602-3737.

Location: Air Maintenance Training Detachment, Beaufort, SC.

Length: 7 weeks (280 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train maintenance personnel to test and maintain the A-4M aircraft.

Instruction: Lectures and practical exercises in the testing and maintenance of the A-4M aircraft, including electrical and instrument systems, automatic flight control system components and theory of operation, navigational computer components and theory of operation, electrical power system, utility circuits, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1704-0103

OV-10A Flight Control and Hydraulic Systems Organizational Maintenance

Course Number: C-602-3521.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/69–Present.

Objectives: To train maintenance personnel to operate, troubleshoot, and maintain the flight control and hydraulic systems of specific equipment.

Instruction: Lectures and practical exercises in the operation, troubleshooting, and maintenance of the flight control and hydraulic systems of specific equipment, including various control systems operation and rigging, hydraulic power control, wheel brake system, and aircraft corrosion control.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1704-0104

F/RF-4B Aircraft Electrical Systems Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to operate, test, and repair F-4 aircraft electrical systems.

Instruction: Lectures and practical exercises in the operation, testing, and repair of F-4 aircraft electrical systems, including AC and DC electrical generation systems, power control, circuit analysis, flight controls, fuel and oxygen quantity gauging systems, air induction system, test equipment, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0105

AH-1J Electrical Organizational Maintenance

Course Number: C-602-3353.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel to repair, check, and maintain the AH-1J electrical system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AH-1J electrical system, including DC electrical systems, AC power supply, fuel system and instruments, warning and detection circuits, lighting circuits, and environmental control system.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0106

F-4B/J Egress and Environmental Control Systems Organizational Maintenance

(F-4B/J Egress and Environmental Control Systems Maintenance)

Course Number: C-602-3806.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (96 hours).

Exhibit Dates: 10/67–Present.

Objectives: To train maintenance personnel to maintain and service the egress and environmental control systems of the F-4B/J aircraft at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the egress and environmental control systems of the F-4B/J aircraft, including corrosion control, specific ejection equipment, components and operation of the basic pneumatic and canopy system, equipment installation, bleed air systems, pressurization and air-conditioning systems components and operation, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0107

SP-2E Systems Familiarization, Plane Captains

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, FL.

Length: 5 weeks (192 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train plane captains to operate the SP-2E aircraft systems.

Instruction: Lectures and practical exercises in the operation of the SP-2E aircraft systems, including power plants and related systems breakdowns, hydraulics and airframes, power systems and components, flight control systems, electrical systems (including AC and DC power distribution and generator systems), propeller operation, aircraft instrumentation, armament system, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0108

A-6A Electrical Systems Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train maintenance personnel who have had previous training in transistor fundamentals to test, troubleshoot, and repair electrical and instrument systems of the A-6A aircraft at the intermediate level.

Instruction: Lectures and practical exercises in the testing, troubleshooting, and repair of the electrical and instrument systems of the A-6A aircraft, including electrical power systems, auxiliary electrical systems, constant speed drive/starter system operation, MA-1 compass system, and approach power compensator system operation and components.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1704-0109

Aviation Support Equipment GTCP-100 and Enclosures Intermediate Maintenance
(Aviation Support Equipment GTCP-100 Engine Intermediate Maintenance)

Course Number: C-602-3212.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 2–3 weeks (80–120 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train aviation support technicians to maintain GTCP-100 engines.

Instruction: Lectures and practical exercises in GTCP-100 engine maintenance, including engine description, cold-section theory, hot-section theory, lubrication system, electrical system, fuel system, air control system, and test equipment operation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1704-0110

Aviation Support Equipment Weapons Loaders Hydraulic Systems Intermediate Level Maintenance

Course Number: C-602-3216.

Location: Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, North Island, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/67–Present.

Objectives: To train aviation support equipment technicians to maintain weapons loaders hydraulic systems at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of weapons loaders hydraulic systems, including nomenclature, function, troubleshooting, and replacement of hydraulic components of weapons loaders.

Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1704-0111

Aviation Support Equipment Technician, Class A (Electrical Specialty)

Course Number: C-602-2019.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 9–12 weeks (376–496 hours). *Version 2:* 11–12 weeks (437–464 hours).

Exhibit Dates: *Version 1:* 1/70–Present. *Version 2:* 5/66–12/69.

Objectives: To train enlisted personnel to maintain and repair aircraft support equipment.

Instruction: *All Versions:* Lectures and practical exercises in aircraft support equipment maintenance and repair, including aviation support equipment introduction, electrical and electronic fundamentals, generator and motor fundamentals, and electrical maintenance on aircraft support vehicles. *Version 1:* Instruction includes air-conditioning systems maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in aircraft support, 4 in aircraft support equipment maintenance (4/74). *Version 2:* In the vocational certificate category, 1 semester hour in physics, 2 in electricity or electronics, 4 in aircraft support equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electromechanical technology (4/74).

NV-1704-0112

Aviation Support Equipment Technician, Class A (Hydraulic Specialty)

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 9–12 weeks (376–464 hours).

Exhibit Dates: 5/66–Present.

Objectives: To train enlisted personnel as aviation support equipment technicians.

Instruction: Lectures and practical exercises in aviation support equipment operation and maintenance, reciprocating engines and associated equipment, tune-up and inspection techniques, diesel engines and related auxiliary equipment, and compressor operation.

Credit Recommendation: In the vocational certificate category, 6 semester hours in aircraft support (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aeronautical technology, 3 in mechanical technology (5/74).

NV-1704-0113

Aviation Support Equipment Technician, Class A (Mechanical Speciality)

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 9–12 weeks (376–464 hours).

Exhibit Dates: 5/66–Present.

Objectives: To train enlisted personnel to maintain aviation support equipment.

Instruction: Lectures and practical exercises in aviation support equipment maintenance and administration, including chassis maintenance and metal repair; frames, axles, and similar components; metal working; welding and painting; fluidic systems and brake systems maintenance; and pneumatic and cryogenic systems maintenance.

Credit Recommendation: In the vocational certificate category, 6 semester hours in aircraft support (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aeronautical technology, 3 as an elective in mechanical technology (5/74).

NV-1704-0114

SH-3A/D Electrical Systems Organizational Maintenance

Course Number: C-602-3397.

Location: Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 4–5 weeks (144 hours).

Exhibit Dates: 8/71–Present.

Objectives: To train maintenance personnel to maintain the electrical systems of SH-3 helicopters.

Instruction: Lectures and practical exercises in the maintenance and repair of the electrical systems of SH-3 helicopters, including power supply system, power plant/main gearbox and related systems, miscellaneous and utility systems, rotor-actuating systems, fuselage fuel system, vertical-gyro operation, hydraulic systems, and automatic bladefold system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity and electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, credit in electricity and electrical laboratory on the basis of institutional evaluation (6/74); in the upper-division baccalaureate category, credit in electricity and electrical laboratory on the basis of institutional evaluation (6/74).

NV-1704-0115

Air Intercept Control (Requalification), Class O/C

Course Number: C-2G-2022; C-221-2013.

Location: Air Technical Training Center, Glynco, GA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/71–Present.

Objectives: To requalify line officers and senior radarmen as air intercept controllers.

Instruction: Lectures and practical exercises in air intercept control procedures and techniques, including R/T procedures and brevity code, intercept theory, TACAN and broadcast control intercepts, Mk 10 IFF, SIF and AIMS system, lead collision intercept, local operating procedures, SAR, air control system, airborne weapons systems, forward quarter conversion intercept, lead pursuit intercept, actual air control, lead collision reattack intercept, and pattern intercepts.

Credit Recommendation: In the vocational certificate category, 6 semester hours in air traffic control (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in air traffic control (6/74).

NV-1704-0116

Aviation Structural Mechanic E (Safety Equipment), Class B

Course Number: C-602-2016.

Location: Air Technical Training Center, Memphis, Millington, TN.

Length: 10–11 weeks (404–420 hours).

Exhibit Dates: 10/65–Present.

Objectives: To train personnel to perform as aviation safety equipment mechanics.

Instruction: Lectures and practical exercises in aircraft repair, including utilization and interpretation of schematic drawings, fundamentals of electricity; technical publications, maintenance management, inspection procedures, corrosion control, aircraft pressurization, air conditioning, and associated systems; oxygen, fire extinguishing, and life raft release systems; and egress systems.

Credit Recommendation: In the vocational certificate category, 8 semester hours in aircraft safety equipment mechanics (6/76); in the lower-division baccalaureate/associate degree category, 4 semester hours in aircraft safety equipment mechanics (6/76).

NV-1704-0117

Air Intercept Control (Supervisor), Class C/O

Course Number: C-2G-2021.

Location: Air Technical Training Center, Glynco, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/71–Present.

Objectives: To train line officers and radarmen as air intercept controllers.

Instruction: Lectures and practical exercises in air intercept control procedures and techniques, including air intercept control procedures and communications, aircraft operations and weapons systems, practical application of air intercept control procedures, synthetic air intercept control, actual air intercept control, supervision and instruction of air intercept controllers.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1704-0118

A-6 PLANE CAPTAIN

Course Number: C-600-3761.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 2 weeks (80 hours).
Exhibit Dates: 8/71–Present.
Objectives: To train enlisted personnel to inspect, service, and maintain A-6 aircraft.
Instruction: Lectures and practical exercises in maintenance and operation of A-6 aircraft. Course includes power plant and aircraft systems; electrical, hydraulic, and flight control systems; and armament systems.
Credit Recommendation: In the vocational certificate category, 4 semester hours in aviation maintenance (6/74).

NV-1704-0119

J52-P6A/8A ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: Not available.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Kingsville, TX; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/71–Present.
Objectives: To train fleet maintenance personnel in J52 intermediate maintenance and complete engine repair.
Instruction: Lectures and practical exercises on J52 intermediate maintenance, including basic engine familiarization; engine disassembly, inspection and repair; assembly; testing; repair and preparation for storage; engine component systems; and cleaning and inspection methods.
Credit Recommendation: In the vocational certificate category, 4 semester hours in turbine engine maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in turbine engine maintenance (6/74).

NV-1704-0120

F-8 AIRFRAMES/HYDRAULIC SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3855.
Location: Air Maintenance Training Detachment, Miramar, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 7/69–Present.
Objectives: To train structural mechanics to perform organizational maintenance on the F-8 aircraft's structures, hydraulic systems, and related equipment.
Instruction: Lectures and practical exercises in the organizational maintenance of the F-8 aircraft's structure, hydraulic systems, and related equipment, including airframes maintenance; maintenance manuals; aircraft description; structural materials used in F-8 construction; corrosion control; power control hydraulic and surface control systems; and utility hydraulic and pneumatic systems.
Credit Recommendation: In the vocational certificate category, 6 semester hours in aircraft hydraulic systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft hydraulic systems maintenance (6/74).

NV-1704-0121

C-2A AIRCRAFT FAMILIARIZATION (PILOTS)

Course Number: C-00-3491.
Location: Air Maintenance Training Detachment, North Island, CA.
Length: 2 weeks (64 hours).
Exhibit Dates: 2/73–Present.
Objectives: To familiarize aircraft pilots with the C-2A aircraft.
Instruction: Lectures and practical exercises on the C-2A aircraft, including power plant and related systems; airframe, hydraulic, and environmental systems; flight controls; electrical systems; and avionics systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft familiarization (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft familiarization (6/74).

NV-1704-0122

F/RF-4B STRUCTURES AND HYDRAULICS MAINTENANCE

Course Number: Not available.
Location: Air Maintenance Training Detachment, El Toro, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 3/68–Present.
Objectives: To train maintenance personnel to maintain and repair the structures and hydraulic systems of the F/RF-4B aircraft at the organizational and intermediate maintenance levels.
Instruction: Lectures and practical exercises in the servicing and maintenance of the structures and hydraulic systems of the F/RF-4B aircraft, including aircraft systems familiarization; introduction and aircraft familiarization; corrosion control; pneumatics, hydraulics, and structures; landing gear and related systems; miscellaneous utility hydraulic subsystems; and flight and surface control systems.
Credit Recommendation: In the vocational certificate category, 4 semester hours in structures and hydraulic maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in structures and hydraulic maintenance (6/74).

NV-1704-0123

TF41-A-2 ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: C-601-3136.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.
Length: 4 weeks (160 hours).
Exhibit Dates: 8/71–Present.
Objectives: To train fleet maintenance personnel to maintain and repair the TF41-A-2 engine.
Instruction: Lectures and practical exercises in TF41-A-2 engine intermediate maintenance, including engine familiarization, systems, and horizontal maintenance; vertical engine disassembly; inspections, disassembly, and assembly of subassemblies; and vertical engine assembly, final test, and preparation for service and storage.
Credit Recommendation: In the vocational certificate category, 6 semester hours in intermediate engine maintenance (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in intermediate engine maintenance (6/74).

NV-1704-0124

SH-3 AIRFRAME AND HYDRAULIC SYSTEMS MAINTENANCE

Course Number: D-603-0570.
Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Ream Field, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 11/67–Present.
Objectives: To train personnel in SH-3 airframe and hydraulic systems maintenance.
Instruction: Lectures and practical exercises in SH-3 airframe and hydraulic systems maintenance, including SH-3 familiarization, utility hydraulic system, flight controls, auxiliary hydraulic system, preventive maintenance and ground handling, and corrosion control.
Credit Recommendation: In the vocational certificate category, 4 semester hours in helicopter hydraulic system maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in helicoper system maintenance (6/74).

NV-1704-0125

KC-130F T-56-A-7 TURBOPROP ENGINE AND RELATED SYSTEMS ORGANIZATIONAL MAINTENANCE

(KC-130F T-56-A-7 Turboprop Engine and Related Systems Maintenance)

Course Number: Not available.
Location: Air Maintenance Training Detachment, El Toro, CA.
Length: 2 weeks (96 hours).
Exhibit Dates: 6/66–Present.
Objectives: To train maintenance personnel to repair T-56 turboprop engines and related systems.
Instruction: Lectures and practical exercises in the latest maintenance techniques, modifications, operation of systems, and servicing procedures applicable to the T-56 and related systems of the GV-1 aircraft, including T-56 turboprop engine and related systems, theory, basic power plant, gas turbine compressor, and electrical control circuit of the GTC.
Credit Recommendation: In the vocational certificate category, 2 semester hours in turboprop engine familiarization (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turboprop engine familiarization (6/74).

NV-1704-0126

F-4B/J MAINTENANCE SUPERVISOR FAMILIARIZATION

Course Number: C-000-3807.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 2 weeks (72–80 hours).
Exhibit Dates: 11/72–Present.
Objectives: To familiarize fleet- and shore-based maintenance supervisors with the F-4B/J aircraft and related systems.
Instruction: Lectures and practical exercises on the F-4B/J aircraft and related systems, including airframe, hydraulic, pneumatic, egress and environmental control systems; missile control systems and related

safety information; CNI, ECM, fuel, power plant, and related systems; electrical systems; missile and armament control systems; and introduction to air launched weapons.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft and systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft and systems maintenance (6/74).

NV-1704-0127

C-2A Power Plant and Related Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120–128 hours).

Exhibit Dates: 11/67–Present.

Objectives: To train enlisted personnel to maintain and repair C2A power plants and related systems.

Instruction: Lectures and practical exercises in the organizational maintenance of the C2A power plant and related systems, including the T-56-A-8/8A engine; functions, operation, and maintenance of the C2A fuel system; and the A6441FN-248 propeller system and components.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aircraft and propeller maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft and propeller maintenance (6/74).

NV-1704-0128

Aviation Structural Mechanic H (Hydraulics), Class A

Course Number: C-602-2017.

Location: Air Technical Training Center, Memphis, TN.

Length: 7–10 weeks (280–400 hours).

Exhibit Dates: 5/56–Present.

Objectives: To train maintenance technicians to repair aircraft hydraulic structural systems.

Instruction: Lectures and practical exercises in aircraft hydraulic structural systems repair, including hydraulic principles, tubes and fittings, flexible hose and fittings, power system components, brakes, struts, shimmy dampers, valves, actuators, publications and forms.

Credit Recommendation: In the vocational certificate category, 6 semester hours in hydraulics structural repair (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in hydraulics structural repair (6/74).

NV-1704-0129

A-6A Hydraulics and Flight Controls Organizational Maintenance

(A-6 Hydraulics, Flight Control and Structures Organizational Level Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel to maintain and repair hydraulic and flight control systems of the A-6A aircraft.

Instruction: Lectures and practical exercises in the operation and maintenance of the hydraulic and flight control system of the A-6A aircraft, including the requirements for daily, preflight, postflight, and periodic inspections and maintenance techniques; removal, installation, and troubleshooting of major components required for organizational maintenance, including aircraft familiarization; hydraulic, flight control, alighting gear and related systems; and ground handling.

Credit Recommendation: In the vocational certificate category, 6 semester hours in systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in systems maintenance (6/74).

NV-1704-0130

Aviation Structural Mechanic E (Safety Equipment), Class A

Course Number: C-602-2015.

Location: Air Technical Training Center, Memphis, TN.

Length: 9 weeks (348–368 hours).

Exhibit Dates: 9/65–Present.

Objectives: To train enlisted personnel to perform as aviation structural mechanics.

Instruction: Lectures and practical exercises in the functions of aviation structural mechanics, including fundamentals, familiarization, schematic interpretation, application of the maintenance and material management system, gaseous oxygen systems, typical aircraft system, liquid oxygen systems, aircraft pressurization and air-conditioning systems, operations and line maintenance, egress systems, and auxiliary bleed air systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in aircraft safety equipment mechanics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft safety equipment mechanics (6/74).

NV-1704-0131

Marine Mechanical School, Class P

Course Number: Not available.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train personnel in basic mechanical maintenance techniques.

Instruction: Lectures and practical exercises in mechanical maintenance, including aviation qualifications, aviation personnel survival, Marine aviation orientation, aircraft familiarization, general administration, aeronautical publications, basic manual skills, aircraft hardware, general mathematics, physics, and electricity.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic aircraft mechanical shop (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic aircraft mechanical shop (6/74).

NV-1704-0132

Aviation Structural Mechanic S (Structures), Class A

Course Number: C-603-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 8 weeks (320 hours). *Version 2:* 9 weeks (360 hours). *Version 3:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 7/69–Present. *Version 2:* 9/65–6/69. *Version 3:* 7/56–8/65.

Objectives: To train enlisted Navy and Marine Corps personnel with previous technical experience to perform as aviation structural mechanics S (structures), third class.

Instruction: Lectures and practical exercises in the duties of aviation structural mechanic S (structures), third class, including fundamentals, aircraft structural repair, welding, nonmetallic materials, airframes and operational maintenance, and aircraft sheet metal.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in aircraft structures shop (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in aircraft structures shop (6/74). *Version 2:* In the vocational certificate category, 7 semester hours in aircraft structures shop (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in aircraft structures shop (6/74). *Version 3:* In the vocational certificate category, 8 semester hours in aircraft structures shop (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in aircraft structures shop (6/74).

NV-1704-0133

H-53 Automatic Flight Control System Organizational Maintenance

Course Number: C-602-3443.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/70–Present.

Objectives: To train maintenance personnel to maintain the H-53 automatic flight control system at the organizational maintenance level.

Instruction: Lectures and practical exercises in the organizational maintenance of the H-53 automatic flight control system, including AFCS maintenance, hydraulic control, stick trim system, power distribution and relay sequence, attitude-indicating system, block-diagram analysis, and line maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in flight control system maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in flight control system maintenance (6/74).

NV-1704-0134

SH-3A Power Plants and Related Systems Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/67–12/68.

Objectives: To train maintenance personnel to maintain and repair SH-3A helicopter power plants and related systems.

Instruction: Lectures and practical exercises on SH-3A power plants and related systems maintenance, including general information; familiarization; T58 engine; construction; systems; engine-related systems; engine installation; operation and maintenance; fuel system; main gear box; rotary rudder drive; rotor-actuating mechanisms; main rotor head assembly; and rotary rudder assembly.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant maintenance laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant maintenance laboratory (6/74).

NV-1704-0135

A-7A/B TF30-P-6/408 Power Plants and Related Systems Organizational Maintenance
(A-7A/B Power Plant and Related Systems Organizational Maintenance)

Course Number: C-601-3781.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (75-80 hours).

Exhibit Dates: 10/70-Present.

Objectives: To train experienced maintenance personnel in the maintenance, operation, and servicing of A-7A/B power plants and related systems.

Instruction: Lectures and practical exercises in A-7A/B power plants and related systems organizational maintenance, including aircraft fuel systems, engine construction and systems, and propulsion system maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant systems maintenance (6/74).

NV-1704-0136

H-46 Stabilization Systems Intermediate Maintenance

Course Number: C-601-3417.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/70-Present.

Objectives: To train experienced maintenance personnel in maintenance and servicing of H-46 stabilization systems at the intermediate level.

Instruction: Lectures and practical exercises in intermediate maintenance and servicing of H-46 stabilization systems, including stability augmentation system; automatic stabilization equipment; automatic speed trim system; and complete intermediate maintenance, troubleshooting, testing and repair.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical and electromechanical systems (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical and electromechanical systems (6/74).

NV-1704-0137

OV-10A T76-G-10/12 Engine Intermediate/Complete Engine Repair Maintenance

Course Number: C-601-3522.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Pendleton, CA.

Length: 3 weeks (136 hours).

Exhibit Dates: 8/69-Present.

Objectives: To train experienced personnel to repair the T76-G-10/12 engine.

Instruction: Lectures and practical exercises on the T76-G-10/12 engine, including intermediate/complete engine repair, engine systems, power management, propeller maintenance, torque-sensing system, engine anti-icing system, fuel system, electrical system, propeller disassembly and assembly, propeller balancing, and inspection and testing.

Credit Recommendation: In the vocational certificate category, 4 semester hours in turboprop engine and propeller maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in turboprop engine and propeller maintenance (6/74).

NV-1704-0138

Aviation Support Equipment Technician Hydraulics and Structures, Class A

Course Number: C-602-2023.

Location: Air Technical Training Center, Memphis, TN.

Length: 9 weeks (313-376 hours).

Exhibit Dates: 1/71-Present.

Objectives: To train enlisted personnel with previous technical experience to perform as aviation support equipment technicians (hydraulics and structures).

Instruction: Lectures and practical exercises in aviation support equipment maintenance (hydraulics and structures), including publications and maintenance organization, aviation support equipment fundamentals, materials, troubleshooting, chassis and brake maintenance, metalwork skills, welding, corrosion control, maintenance of fluidic systems, servicing equipment, and line maintenance.

Credit Recommendation: In the vocational certificate category, 4 semester hours in chassis and metalworking shop, 3 in hydraulics and liquified-gas laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in chassis and metalworking shop, 2 in hydraulics and liquified-gas laboratory (6/74).

NV-1704-0139

SH-3D/H Power Plants and Related Systems Organizational Maintenance Course

Course Number: C-601-3399.

Location: Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/73-Present.

Objectives: To train maintenance personnel to maintain SH-3D and SH-3H aircraft power plants and related systems, including scheduled and unscheduled inspections; system servicing, repair, troubleshooting, and schematic analysis; and specific support equipment.

Instruction: Lectures and practical exercises in maintenance of SH-3D and SH-3H aircraft power plants and related systems. Topics include general information and theory of helicopter flight, power plant systems, rotors and related systems, inspections, and functional testing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0140

A-7E Powerplant and Related Systems Organizational Maintenance

Course Number: C-601-3782.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 4 weeks (144-180 hours).

Exhibit Dates: 9/72-Present.

Objectives: To train enlisted personnel to maintain and repair the A-7E power plant and related systems.

Instruction: Lectures and practical exercises in the maintenance, operation, and servicing of the A-7E power plant and related systems, and use of tools and special maintenance and test equipment related to organizational maintenance, including aircraft fuel system, engine description and systems, propulsion system maintenance, operating maintenance, and practical training.

Credit Recommendation: In the vocational certificate category, 3 semester hours in power plant organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in power plant organizational maintenance (6/74).

NV-1704-0141

UH-2C, HH-2C and HH-2D Power Plants and Related Systems Organizational Maintenance

Course Number: C-601-3386.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3 weeks (96 hours).

Exhibit Dates: 2/73-Present.

Objectives: To train maintenance personnel to maintain helicopter power plants and related systems.

Instruction: Lectures and practical exercises in maintenance of UH-2C, HH-2C and HH-2D power plants and related systems. Topics include familiarization with power plants and related systems; removal, inspection, and installation of power plants; and organizational maintenance of transmissions and drive shafts.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter power plant laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter power plant laboratory (6/74).

NV-1704-0142

Aircraft Maintenance Officers, Class O

Course Number: C-4D-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 16 weeks (634-640 hours). *Version 2:* 16 weeks (640 hours). *Version 3:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 2/70-Present. *Version 2:* 6/65-1/70. *Version 3:* 1/57-5/65.

Objectives: To train prospective squadron maintenance officers to organize, supervise and administer aircraft maintenance departments.

Instruction: *All Versions:* Lectures and practical exercises on organization, supervision and administration of aircraft maintenance departments, including avionics equipment and systems, maintenance and material management administration, airframe equipment and systems, publications, and maintenance organization management. *Version 3:* Topics include armament equipment and systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in aircraft maintenance management, 12 in aircraft systems (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance management, 6 in aircraft systems (6/74); in the upper-division baccalaureate category, 3 semester hours in aircraft maintenance management (6/74). *Version 2:* In the vocational certificate category, 12 semester hours in maintenance management, 12 in electricity, electronics, or electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in maintenance management (6/74), 3 in electricity, electronics, or electrical laboratory (12/68); in the upper-division baccalaureate category, 3 semester hours in maintenance management (6/74). *Version 3:* In the vocational certificate category, 8 semester hours in maintenance management, 8 in electricity, electronics, or electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in maintenance management (6/74), 3 in electricity, electronics, or electrical laboratory (12/68); in the upper-division baccalaureate category, 2 semester hours in maintenance management (6/74).

NV-1704-0143

C-2A HYDRAULICS/AIRFRAMES SYSTEM ORGANIZATIONAL MAINTENANCE

(C-2A Hydraulics/Airframes System Maintenance)

Course Number: C-602-3494.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3-4 weeks (109-120 hours).

Exhibit Dates: 9/67-Present.

Objectives: To train maintenance personnel to maintain C-2A hydraulic and airframe systems at the organizational level.

Instruction: Lectures and practical exercises in maintenance of C-2A hydraulic and airframe systems. Course includes flight- and combined-systems power sections and power control systems, utility systems, alighting gear, flight controls and structures operation, line maintenance, troubleshooting, servicing, and ground handling.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aircraft systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft systems maintenance (6/74).

NV-1704-0144

SH-3A POWER PLANTS AND RELATED SYSTEMS MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Ream Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/67-Present.

Objectives: To train maintenance personnel in SH-3A power plants and related systems organizational maintenance.

Instruction: Lectures and practical exercises in the maintenance of SH-3A power plants and related systems. Topics include familiarization with power plants and systems, details of T58 engines, engine-related systems, transmissions, and rotor-actuating mechanisms.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0145

AVIATION SUPPORT EQUIPMENT TECHNICIAN MECHANICAL, CLASS A

Course Number: C-602-2024.

Location: Air Technical Training Center, Memphis, TN.

Length: 9 weeks (313-376 hours).

Exhibit Dates: 1/71-Present.

Objectives: To train ground service support technicians to maintain various types of ground support equipment.

Instruction: Lectures and practical exercises in the maintenance of ground support equipment. Topics include technical publications and directives; records and reports; theory of operation of and principles applicable to fluid, heat and electricity; safety precautions; hand tools; shop equipment and test equipment; fuels and lubricants; corrosion control; servicing; inspections; and gasoline, diesel and turbine engine maintenance.

Credit Recommendation: In the vocational certificate category, 8 semester hours in aviation ground support equipment maintenance (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in aviation ground support equipment maintenance (6/74).

NV-1704-0146

SH-3A/G POWER PLANTS AND RELATED SYSTEMS ORGANIZATIONAL LEVEL MAINTENANCE

Course Number: C-601-3396.

Location: Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/73-Present.

Objectives: To train enlisted personnel to maintain SH-3A/G aircraft power plants and related systems.

Instruction: Lectures and practical exercises in the troubleshooting, maintenance, and repair of the SH-3A/G aircraft power plant and related systems. Course includes general information and theory of helicopter flight, power plant systems, rotors and related systems, inspection requirements, and functional testing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power plant organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0147

H-53 HELICOPTER MAINTENANCE

Course Number: C-601-3445.

Location: Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/72-Present.

Objectives: To train maintenance technicians to maintain H-53 helicopters.

Instruction: Lectures and practical exercises in the maintenance of H-53 helicopters, including rotors and related systems, power plant, auxiliary power plant, and fuel systems maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter maintenance fundamentals (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in helicopter maintenance fundamentals (6/74).

NV-1704-0148

AVIATION MACHINIST'S MATE J (JET ENGINE), CLASS A

(Aviation Machinist's Mate J (Turbo-Jet), (Class A))

Course Number: C-601-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: 7-8 weeks (264-304 hours).

Exhibit Dates: 5/56-Present.

Objectives: To train enlisted personnel with previous technical experience to perform as jet engine mechanics.

Instruction: Lectures and practical exercises in jet engine repair, including AD rating and training, jet propulsion principles, power plant familiarization (general), typical axial-flow power plant, centrifugal-flow power plant familiarization, periodic inspections, power plant replacement, jet aircraft line operations, and fuel systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in theory of turbine (jet) engines (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in theory of turbine (jet) engines (6/74).

NV-1704-0149

AVIATION MACHINIST'S MATE R (RECIPROCATING), CLASS A

Course Number: *Version 1:* C-601-2012. *Version 2:* Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 7-8 weeks (309-336 hours). *Version 2:* 9 weeks (344 hours).

Exhibit Dates: *Version 1:* 9/65-Present. *Version 2:* 12/56-8/65.

Objectives: To train enlisted personnel with previous technical experience to repair reciprocating-engine aircraft.

Instruction: Lectures and practical exercises in reciprocating-engine repair, including fundamentals, power plants and line operations, power plant accessories, line operations and power plant maintenance, fuel metering, ignition, propellers, periodic inspections, and troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in basic reciprocating-engine overhaul (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic reciprocating-engine overhaul (6/74). *Version 2:* In the vocational certificate category, 8 semester hours in basic reciprocating-engine overhaul (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in advanced reciprocating-engine overhaul (6/74).

NV-1704-0150

T-53-L-13 ENGINE INTERMEDIATE MAINTENANCE/COMPLETE ENGINE REPAIR

Course Number: C-601-3343.

Location: Air Maintenance Training Detachment, Ellyson Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/73-Present.

Objectives: To train maintenance personnel in the intermediate maintenance and complete engine repair of the T53-L-13 shaft-turbine engine.

Instruction: Lectures and practical exercises on the intermediate maintenance and complete engine repair of the T53-L-13 shaft-turbine engine, including engine disassembly and inspection; engine repair and reassembly; repair and installation of inlet guide vane and compressor; and gas producer and accessory repair and installation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft turbine engine maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft turbine engine maintenance (6/74).

NV-1704-0151

E2A Power Plant and Related Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120-128 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train enlisted personnel to maintain and operate turboprop engines and related systems, including fuel and propeller systems and components.

Instruction: Lectures and practical exercises in operation and maintenance of turboprop engines. Course includes power plant organizational maintenance, troubleshooting, repair, component replacement and specific test equipment use.

Credit Recommendation: In the vocational certificate category, 2 semester hours in turboprop organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turboprop organizational maintenance (6/74).

NV-1704-0152

E-2A Power Plant and Related Systems Maintenance No. 8

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train enlisted personnel in the maintenance of turboprop engines, including fuel systems, propeller systems, electrical systems, and components.

Instruction: Lectures and practical exercises in maintenance of turboprop engines and related systems. Topics include intermediate and organizational maintenance on power plant and related systems; troubleshooting, repair, and replacement of equipment; and test equipment utilization.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory, 4 in turboprop power plant laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory, 3 in turboprop power plant laboratory (6/74).

NV-1704-0153

AH-1J Powertrain and Rotors Organizational Maintenance

Course Number: C-600-3351.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/72-Present.

Objectives: To train maintenance personnel to locate, operate, troubleshoot, and maintain the helicopter power trains and rotor systems.

Instruction: Lectures and practical exercises in maintenance, operation, and servicing of helicopter power trains and rotor systems of AH-1J helicopters. Course includes information on nomenclature, location, operation, removal, inspection, and installation of components.

Credit Recommendation: In the vocational certificate category, 2 semester hours in organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in organizational maintenance (6/74).

NV-1704-0154

H-46 Rotors and Related Systems Organizational Maintenance Course

Course Number: Not available.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (112 hours).

Exhibit Dates: 6/68-Present.

Objectives: To train maintenance personnel to maintain the rotors and related systems of the H-46 helicopter.

Instruction: Lectures of practical exercises in the maintenance of the rotor, drive, flight control, and utility systems of the H-46 helicopter, including drive system and rotor system maintenance, flight control system maintenance, and utility systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in rotorcraft systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in rotorcraft systems maintenance (6/74).

NV-1704-0155

E-2A Hydraulics/Airframes Systems Organizational Maintenance
(E-2A Hydraulics/Airframes System Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3-4 weeks (107-120 hours).

Exhibit Dates: 10/67-Present.

Objectives: To train personnel in E-2A hydraulics/airframes system maintenance.

Instruction: Lectures and practical exercises on the latest maintenance procedures for organizational maintenance on the E-2A hydraulics, alighting gear, and airframes systems, including flight and combined-system power sections, flight control systems, utility systems, alighting gear, longitudinal control system, directional controls, lateral controls, flap and aileron droop system, rigging, ground handling, and structures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in hydraulic/airframe systems maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulic/airframe systems maintenance (6/74).

NV-1704-0156

1. Aircraft Maintenance Nondestructive Inspection School, Class C
2. Aircraft Maintenance Nondestructive Inspection School, Class C
(Aircraft Maintenance Radiography School, Class C)

Course Number: C-603-3191.

Location: Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 9 weeks (360 hours). *Version 2:* 8 weeks (312-320 hours).

Exhibit Dates: *Version 1:* 11/69-Present. *Version 2:* 11/65-10/69.

Objectives: To train military and federal civil service personnel in aircraft maintenance radiography, nondestructive aircraft maintenance inspection, and eddy current and ultrasonic procedures and interpretation.

Instruction: Lectures and practical exercises in aircraft maintenance radiography and maintenance nondestructive inspection, including radiography and related subjects, radiographic equipment, film processing, laboratory and aircraft line radiography, and ultrasonic and eddy current inspection.

Credit Recommendation: *Version 1:* In the vocational certificate category, 14 semester hours in aircraft maintenance nondestructive inspection (6/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in aircraft maintenance nondestructive inspection (6/74). *Version 2:* In the vocational certificate category, 12 semester hours in aircraft maintenance nondestructive inspection (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in aircraft maintenance nondestructive inspection (6/74).

NV-1704-0157

Aviation Mechanical Fundamentals, Class P
(Aviation Mechanical Fundamentals, Class A)

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 9/65-Present.

Objectives: To train personnel in aviation mechanical fundamentals.

Instruction: Lectures and practical exercises in aviation mechanical fundamentals, including general information, hand tools and aircraft hardware, general mathematics, physics, electricity, magnetic theory, and parallel circuits.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft fundamentals (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft fundamentals (6/74).

NV-1704-0158

Aviation Machinist's Mate R (Reciprocating), Class B

Course Number: C-601-2013.

Location: Air Technical Training Center, Memphis, TN.

Length: 13-14 weeks (540-576 hours).

Exhibit Dates: 6/66-Present.

Objectives: To provide aviation machinist's mates with advanced training in reciprocating-engine repair.

Instruction: Lectures and practical exercises on aircraft reciprocating power plants and related systems, including aircraft maintenance program, reciprocating power plants, ignition, fuel metering, propellers, material control, maintenance management, quality control, magnetism, induction, circuit troubleshooting, supervision and maintenance, engine analyzers, and reversing hydromatic propeller and systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in maintenance management and reciprocating power plants (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in maintenance management and reciprocating power plants (6/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1704-0159

Aviation Machinist's Mate J (Jet Engine), Class B

Course Number: C-601-2011.
Location: Air Technical Training School, Memphis, TN.
Length: 13–14 weeks (536–544 hours).
Exhibit Dates: 10/65–Present.
Objectives: To provide aviation machinist's mates with advanced training in jet engine maintenance.
Instruction: Lectures and practical exercises in the maintenance of aircraft turbine-type power plants and related systems, including advanced power plant fundamentals and auxiliary equipment, advanced turbojet power plants, advanced turbofan power plant, advanced turboprop power plant, naval aircraft maintenance program, J57 power plant, T56 power plant, and J79 power plant orientation.
Credit Recommendation: In the vocational certificate category, 8 semester hours in turbine engine maintenance management (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in turbine engine maintenance management (6/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1704-0160

P-3 Ordnance Systems Organizational Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.
Length: 2 weeks (80 hours).
Exhibit Dates: 6/70–Present.
Objectives: To train maintenance personnel to maintain and service P-3 aircraft armament systems.
Instruction: Lectures and practical exercises in maintenance of P-3 aircraft armament systems. Course includes bomb bay and wing stores systems, pneumatic systems, launcher systems, sonobuoy systems, underwater sound signal systems, photographic systems, jettison systems, intervalometer ordnance and rocket sight systems.
Credit Recommendation: In the vocational certificate category, 1 semester hour in ordnance systems technology (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in ordnance systems technology (6/74).

NV-1704-0161

P-3 Hydraulics, Flight Control Systems and Structures Organizational Maintenance

Course Number: E-602-1080.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 8/70–Present.
Objectives: To train maintenance personnel to service and maintain hydraulic systems, flight controls, and structures of P-3 aircraft.
Instruction: Lectures and practical exercises in maintenance of hydraulic systems, flight controls, and structures of P-3 aircraft. Course includes plumbing, power, auxiliary landing gear, brake, windshield wiper, flap, and primary control systems; booster assembly; A/C structures; and windows, doors and emergency exits.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulic systems (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulic systems (6/74).

NV-1704-0162

AH-1J Power Plant and Related Systems Organizational Maintenance

Course Number: C-601-3351.
Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 10/71–Present.
Objectives: To train maintenance personnel to maintain AH-1J/T400 CP-400 power plant systems.
Instruction: Lectures and practical exercises in AH-1J/T400 CP-400 power plant systems maintenance. Course includes turbine engine removal and installation; engine alignment; engine control systems; rigging; and fuel and oil systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in jet engine maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in jet engine maintenance (6/74).

NV-1704-0163

F-8 J57-P-16/20 Intermediate Maintenance/Complete Engine Repair

(F-8 J57-P-16/20 Intermediate Maintenance)

Course Number: Not available.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Jacksonville, FL.
Length: 3 weeks (112 hours).
Exhibit Dates: 3/68–Present.
Objectives: To train fleet aircraft maintenance personnel in J57-P-16/20 intermediate maintenance and complete engine repair.
Instruction: Lectures and practical exercises in J57-P-16/20 intermediate maintenance and complete engine repair, including disassembly, cleaning, inspection, minor repair, engine testing and trimming procedures and techniques, and assembly.
Credit Recommendation: In the vocational certificate category, 2 semester hours in turbine engine maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbine engine maintenance (6/74).

NV-1704-0164

A-6A Power Plants and Related Systems Organizational Level Maintenance

Course Number: E-601-0610.
Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train maintenance personnel in A-6A aircraft power plants and related systems organizational maintenance.
Instruction: Lectures and practical exercises in A-6A power plants and related systems organizational maintenance, including aircraft general description, periodic maintenance requirements program, power plants, engine operating limits and procedures, engine removal and installation, engine trim procedure, constant speed drive/starter unit familiarization, and fuel system.
Credit Recommendation: In the vocational certificate category, 2 semester hours in turbojet organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in turbojet organizational maintenance (6/74).

NV-1704-0165

A-6 Maintenance Supervisors Familiarization

Course Number: Not available.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train supervisory personnel in the A6 weapons system.
Instruction: Lectures and practical exercises on the A6 weapons system, including A6 maintenance familiarization, hydraulic power and distribution, general electrical and electronics systems, A6 weapons system familiarization, general avionics equipment and maintenance, power plants and fuel systems, and environmental system.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft systems laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft systems laboratory (6/74).

NV-1704-0166

RA-5C Armament Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Sanford, FL.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train enlisted personnel to maintain the RA-5C armament system and its components.
Instruction: Lectures and practical exercises in the maintenance of the RA-5C armament system and its components. Course includes controls and indicators, external pylons, electrical systems, delivery modes, and bomb control monitoring systems.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1704-0167

A-6A Armament Systems Organizational Maintenance

Course Number: E-646-0640.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 3–4 weeks (120–160 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train maintenance personnel to maintain and operate A-6A armament systems.
Instruction: Lectures and practical exercises in maintenance and operation of A-6A armament systems. Course includes the components and applicable support equipment for A-6A systems; inspection and safety procedures; shop repairs; adjustments; and test and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (6/74); in the lower-

division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/74).

NV-1704-0168

H-53 Power Plants and Related Systems Organizational Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Santa Ana, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 5/70–Present.
Objectives: To train maintenance personnel to maintain T-64-GE-6/6A engines and engine systems, aircraft fuel systems, and T-62T-12 engines and engine systems at the organizational level.
Instruction: Lectures and practical exercises in maintenance of T-64-GE-6/6A engines and engine systems, aircraft fuel systems, and T-62T-12 engines and engine systems. Course includes overall system operation, system troubleshooting, and use of special support equipment.
Credit Recommendation: In the vocational certificate category, 1 semester hour in power plant organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0169

T2C Power Plants and Related Systems Maintenance

Course Number: C-601-3877; C-601-094.
Location: Air Maintenance Training Detachment, Meridian, MS.
Length: 2 weeks (80 hours).
Exhibit Dates: 9/70–Present.
Objectives: To train maintenance personnel to maintain and repair T2C aircraft fuel systems and J85-GE-4 engines and related systems.
Instruction: Lectures and practical exercises in maintenance and repair of T2C aircraft fuel and related systems. Course includes inspection techniques, troubleshooting, engine limits and adjustments, and T2C system installation.
Credit Recommendation: In the vocational certificate category, 1 semester hour in power plant organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0170

A-4(J52-P-6A/8A) Power Plant and Related Systems Organizational Maintenance

Course Number: C-601-3717.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.
Length: 2 weeks (64 hours).
Exhibit Dates: 4/73–Present.
Objectives: To train maintenance personnel to test, maintain, and repair the A-4 power plant and related systems.
Instruction: Lectures and practical exercises on the A-4 power plant and related systems, including power plant system, J52 engine description, power plant maintenance, aircraft fuel system, and engine maintenance and operation.
Credit Recommendation: In the vocational certificate category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0171

S-2D/E Power Plant and Related Systems Maintenance

Course Number: C-601-3611.
Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, North Island, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 11/72–Present.
Objectives: To train maintenance personnel to maintain the power plant and related systems of the S-2D/E aircraft at the intermediate and organizational maintenance levels.
Instruction: Lectures and practical exercises on the power plant and related systems of the S-2D/E aircraft at the intermediate and organizational maintenance levels, including R1820-82A aircraft engine; field maintenance and minor repair; engine change, removal, and installation; external oil system maintenance; propeller maintenance; fuel system; Bendix Stromberg carburetor; ignition system and field maintenance; and inspections and troubleshooting.
Credit Recommendation: In the vocational certificate category, 1 semester hour in power plant organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0172

SH/HH-2D Power Plant and Related Systems Organizational Maintenance

Course Number: C-601-3387.
Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 4/73–Present.
Objectives: To train maintenance personnel to maintain SH/HH-2D power plant, transmission and fuel systems at the organizational level.
Instruction: Lectures and practical exercises in SH/HH-2D power plant, transmission and fuel systems maintenance.
Credit Recommendation: In the vocational certificate category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0173

A-7E Armament System Maintenance

Course Number: C-646-3787.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.
Length: 2 weeks (64 hours).
Exhibit Dates: 3/71–Present.
Objectives: To train maintenance personnel to operate and maintain the A-7E armament system at the organizational level.
Instruction: Lectures and practical exercises in the maintenance and operation of the A-7E armament system. Course includes weapons release stations; release and control systems; and systems checks and circuit analysis, use of specific test equipment, and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical or electronic systems (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical or electronic systems (6/74).

NV-1704-0174

Engineman Class C, Controllable Pitch Propeller
(Controllable Pitch Propeller, Class C)

Course Number: A-652-0028.
Location: Service School Command, Great Lakes, IL.
Length: 4 weeks (126 hours).
Exhibit Dates: 11/65–Present.
Objectives: To train enginemen and petty officers third class and above to test, adjust, diagnose, and correct malfunctions in controllable-pitch propeller systems.
Instruction: Lectures and practical exercises in testing, diagnosing, and correcting controllable-pitch propeller systems. Course includes advanced principles of hydraulics; installation, adjustment and prestart checks; operation, maintenance, and troubleshooting controllable-pitch propeller systems; servomotor controls; electrohydraulic, electromechanical and pneumatic-hydraulic controls; principles of operation of pumps, valves, gages; and associated piping and tubing.
Credit Recommendation: In the vocational certificate category, 4 semester hours in mechanical technology (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in mechanical technology (6/74).

NV-1704-0175

UH-1N Powertrain and Rotors Organizational Maintenance

Course Number: C-600-3355.
Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/73–Present.
Objectives: To train personnel in the components and assemblies of power train/rotor systems.
Instruction: Lectures and practical exercises on the components and assemblies of power train/rotor systems, including nomenclature, location, operation, removal, and installation; organizational maintenance; rotor systems; mast and transmission assembly; drive shafts; gear boxes; and flight control systems.
Credit Recommendation: In the vocational certificate category, 1 semester hour in power train and rotor organizational maintenance (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power train and rotor organizational maintenance (6/74).

NV-1704-0176

UH-2C Power Plants, Fuel, Transmissions and Related Systems Organizational Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Imperial Beach, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 8/68–Present.
Objectives: To train maintenance personnel to maintain, operate, and service the UH-2C T58-GE-8B power plant, fuel, transmission, and related systems at the organizational level.
Instruction: Lectures and practical exercises in the maintenance, operation, and servicing of the UH-2C T58-GE-8B power plant, fuel, transmission, and related systems.
Credit Recommendation: In the vocational certificate category, 1 semester hour in power plant organizational maintenance (6/74); in the lower-division

baccalaureate/associate degree category, 1 semester hour in power plant organizational maintenance (6/74).

NV-1704-0177

Aviation Structural Mechanic S (Structures), Class C7
(Aviation Structural Mechanic S (Structures, Class B)

Course Number: C-603-2011.

Location: Air Technical Training Center, Memphis, TN.

Length: 13–14 weeks (540–556 hours).

Exhibit Dates: 10/65–Present.

Objectives: To train personnel to perform as aviation structural mechanics.

Instruction: Lectures and practical exercises in aviation structural repair, including introduction to electricity, circuits, and magnetism; orthographic and isometric drawings; sectional drawings; reading electrical system schematics; procurement of aircraft parts; maintenance and materiel control; introduction to aviation maintenance management; planned maintenance system; theory of corrosion and aircraft cleaning; aircraft rib repairs; and testing of metals.

Credit Recommendation: In the vocational certificate category, 10 semester hours in aircraft structures shop (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in aircraft structures shop (6/74).

NV-1704-0178

C-121 Electrical Systems

Course Number: D-600-010.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/66–12/68.

Objectives: To train aviation electricians to troubleshoot and repair the electrical systems of C-121 aircraft.

Instruction: Lectures and practical exercises in the electrical systems of C-121 aircraft, including AC and DC power systems, air conditioning and pressurization, fuel and oil systems, miscellaneous systems, Hamilton Standard propeller system, and Sperry engine analyzer.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1704-0179

C-121 Electronic Systems

Course Number: D-600-011.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/66–12/68.

Objectives: To train aviation electronics technicians in basic electronic components and systems in C-121 aircraft.

Instruction: Lectures and practical exercises in basic electronic components and systems in C-121 aircraft, including communication, navigation, and AN/APS-42 radar systems in the C-121J transport; communications, navigation, radar, IFF, and other associated equipment in EC-121K systems and special EC-121 electronics configurations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-1704-0180

F-8 Power Plants and Related Systems

Course Number: E-601-1910.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel to operate, service, and maintain F-8 power plants and related systems.

Instruction: Lectures and practical exercises in F-8 power plant and related systems operation, servicing, and maintenance, including fuel system components and location, venting and pressurization, aircraft refueling and defueling, and gaging operations; fuel cell removal and installation; power plants, principles of jet propulsion; compressor section, combustion, turbine exhaust, air system flow control and utilization, lubrication, constant speed drive, ignition, fuel pump, fuel control, and rigging and adjusting; engine removal and installation of afterburners, periodic inspections, preservation and depreservation, and corrosion control; aircraft checks; and pneumatic and starting systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1704-0181

J52-P6/6A/8A Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/67–Present.

Objectives: To train enlisted personnel to maintain the J52 jet engine.

Instruction: Lectures and practical exercises in J52 jet engine maintenance and repair, including engine introduction; repair and replacement of engine components; cold section disassembly for complete repair activities; hot section disassembly; lubrication system; engine fuel system; electrical, ignition, and air systems cleaning, inspection and repair; and assembly, test, and installation procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1704-0182

F/RF-4B/J Power Plant and Related Systems Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (104 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel to maintain and service J-79-GE-8/10 power plant systems and F/RF-4B/J fuel systems.

Instruction: Lectures and practical exercises in J-79-GE-8/10 power plant systems and the F/RF-4B/J fuel systems maintenance, troubleshooting, and servicing, including personnel, aircraft, and equipment safety; system description and operation; fuel system maintenance; power plant, engine description, fuel system, nozzle system, ignition, lubrication, air induction, and forward cockpit; and aircraft and engine-related systems components description, maintenance, and trouble analysis.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1704-0183

Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 9 weeks (368 hours).

Exhibit Dates: 10/70–Present.

Objectives: To train selected commissioned officers to operate, inspect, and maintain the C-7/11 catapults and Mark 7 arresting gear and barricades, and to familiarize the student with the visual landing aids (including the Fresnel lens optical landing system, manually operated visual landing aid system, and the pilot landing aid television system).

Instruction: Lectures and practical exercises in the operation, maintenance, and inspection of the C-7/11 catapults and Mark 7 arresting gear and barricades. Topics include fundamentals, description of aircraft launching equipment and aircraft recovery equipment, and aircraft launching and recovery procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1704-0184

Aircraft Launch and Recovery Equipment, Class O

Course Number: C-2G-2010.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 10/70–Present.

Objectives: To train officers in aircraft launch and recovery operations and procedures.

Instruction: Lectures and practical exercises in aircraft launch and recovery operations and procedures, including equipment familiarization, operations, aircraft launch and recovery equipment, catapults and arresting gear, steam catapults, and associated equipment, arresting gear, aircraft launch and recovery procedures, aircraft launching bulletins, launching procedures, recovery operations, and functions of V-2 division officer.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0185

A-4 Integrated Electrical Systems Organizational Maintenance

Course Number: C-602-3728.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 6 weeks (248 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train enlisted personnel to maintain A-4 aircraft electrical systems.

Instruction: Lectures and practical exercises in the maintenance of A-4 aircraft electrical systems, including electrical and instrument systems, system integration, functional analysis, all-attitude and low-altitude bombing system, remote standby attitude indication system, automatic flight control system, navigational computer, and planned maintenance procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1704-0186

AVIATION FUEL SYSTEMS, CLASS C

Course Number: C-821-2011.

Location: Air Technical Training Center, Lakehurst, NJ; Air Technical Training Center, Philadelphia, PA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/65–Present.

Objectives: To train selected enlisted personnel to operate and maintain aviation fuel systems.

Instruction: Lectures and practical exercises in aviation fuel systems operation and maintenance, including fuel quality control and portable equipment, store-based refueling equipment, low-capacity gasoline system and inert-gas producer, and the JP-5 fuel system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in aviation technology (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aviation technology (7/74).

NV-1704-0187

AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT (C-13 AND C-13 MOD 1 CATAPULTS), CLASS C

(Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C)

Course Number: C-680-2011.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 9 weeks (352 hours).

Exhibit Dates: 8/70–1/73.

Objectives: To train personnel in the operation, inspection, and maintenance of C-13 catapults and related equipment; Mark 7 Mods 1, 2, and 3 arresting gear and barricades; and shore-based arresting gear.

Instruction: Lectures and practical exercises in aircraft launch and recovery equipment (C-13 and C-13 Mod 1 catapults), class C, including basic information relating to catapult and arresting gear, specific aircraft launching equipment, basic information relative to all-steam catapults, steam system, launching engine system, retraction engine system, bridle-tensioning system, control system, associated equipment, bridle-arrestor system, and operation of catapult, aircraft recovery equipment, and shore-based arresting gear.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0188

F/RF-4B/J / J79-GE-8/10 POWER PLANT ORGANIZATIONAL MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (96 hours).

Exhibit Dates: 7/71–Present.

Objectives: To train maintenance personnel in the latest maintenance procedures required to maintain J79-GE-8/10 power plants of F/RF-4B/J aircraft at the organizational level.

Instruction: Lectures and practical exercises in J79-GE-8/10 power plant organizational maintenance, including aircraft familiarization, engine maintenance and inspection procedures, general safety, and publications.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1704-0189

F-4B/J POWER GENERATING SYSTEM INTERMEDIATE MAINTENANCE

Course Number: C-602-3819.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (64–75 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train maintenance personnel to service and maintain power-generating systems in the F-4 aircraft.

Instruction: Lectures and practical exercises in the service and maintenance of the power-generating systems in the F-4 aircraft. Course includes electric generators and related components, constant-speed drive systems repair, voltage regulators, and AC systems test procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (7/74).

NV-1704-0190

A7A/B STRUCTURES, HYDRAULICS AND PNEUMATIC SYSTEMS MAINTENANCE

(A7A/B Hydraulic and Pneumatic Systems Organizational Maintenance)

Course Number: C-602-3785.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train maintenance personnel to maintain and service A-7A/B structures and hydraulic, pneumatic, and primary and auxiliary flight control systems.

Instruction: Lectures and practical exercises in the maintenance and servicing of A-7A/B structures and hydraulic, pneumatic, and primary and auxiliary flight control systems. Course includes hydraulic and pneumatic principles, fuel cells, and hydraulic power control.

Credit Recommendation: In the vocational certificate category, 4 semester hours in hydraulic and pneumatic laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulic and pneumatic laboratory (7/74).

NV-1704-0191

KC-130F AIRFRAMES AND HYDRAULICS ORGANIZATIONAL MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train maintenance personnel to maintain and repair the KC-130F aircraft's airframe and hydraulic systems.

Instruction: Lectures and practical exercises in the maintenance and repair of the KC-130F aircraft's airframe and hydraulic systems, including structural repairs, flight controls, landing gear, and steering systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aircraft structural repair and hydraulics (7/74).

NV-1704-0192

F/RF-4B/J AIRCRAFT MECHANICS ORGANIZATIONAL MAINTENANCE

Course Number: C-600-3831.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/72–Present.

Objectives: To train maintenance personnel to maintain F/RF-4B/J aircraft and J79-GE-8/10 engines at the organizational level.

Instruction: Lectures and practical exercises in the maintenance of R/RF-4B/J aircraft and J79-GE-8/10 engines, including electrical, armament, hydraulics and airframes, fuel and refuel, and pressurization and vent systems; survival equipment; fuel transfer; basic engine description; power plants and related systems; and inspection and installation procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft maintenance (7/74).

NV-1704-0193

KC-130F PROPELLER INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train maintenance personnel to operate, test, maintain, and repair the propeller of the KC-130 aircraft.

Instruction: Lectures and practical exercises in the operation, testing, maintenance, and repair of the propeller of the KC-130 aircraft, including component assembly and disassembly for the Hamilton Standard 54-H-60 propeller, electrical control system, pressure and other testing procedures, and installation and adjustment procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0194

H-46 HYDRAULIC SYSTEM ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3416.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (64–80 hours).

Exhibit Dates: 8/70–Present.

Objectives: To train maintenance personnel to maintain H-46 hydraulic systems.

Instruction: Lectures and practical exercises in the maintenance of H-46 hydraulic systems, including wheel brake, flight control, and utility hydraulic systems components and operation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulics laboratory (6/75).

NV-1704-0195

E-1B Airframe and Hydraulic Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/68–Present.

Objectives: To train maintenance personnel to operate and maintain the airframe and hydraulic systems of the E-1B aircraft.

Instruction: Lectures and practical exercises in the operation and maintenance of the airframe and hydraulic systems of the E-1B aircraft, including power system and sources, emergency hydraulic system, alighting gear components and systems, hydraulically operated flight controls and accessory systems, various flight controls and surfaces, airframe mechanisms, and inspection and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in hydraulic laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in hydraulic laboratory (7/74).

NV-1704-0196

Senior Officers Orientation
(Senior Officer Helicopter Training)

Course Number: Not available.

Location: Air Basic Training Command, Pensacola, FL.

Length: 5 weeks (58 hours).

Exhibit Dates: 7/64–12/68.

Objectives: To train senior officers in helicopter flight characteristics.

Instruction: Lectures and practical exercises in helicopter flight characteristics, including aerodynamics and flight characteristics of the H-33 helicopter; preflight inspection procedures; engine starting procedures; vertical takeoff; hovering; vertical landing; engine shutdown, postflight inspection; various maneuvers; and night training.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0197

Naval Aviation Observer (Controller), Class O

Course Number: Not available.

Location: Naval Air Station, Glynco, GA.

Length: 5 weeks (192 hours).

Exhibit Dates: 6/57–12/68.

Objectives: To train officers to be aviation observers with the airborne combat information center.

Instruction: Lectures and practical exercises in basic electronics, air navigation, airborne combat information center equipment usage, and combat information center tactics.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0198

A-3 S-5 Auto Pilot Maintenance

Course Number: C-602-3704.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel to operate and maintain the S-5 autopilot.

Instruction: Lectures and practical exercises in S-5 autopilot operation and maintenance, including theory of operation, maintenance procedures, autopilot system familiarization, troubleshooting and field maintenance, and components description.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0199

Aviation Fuel Systems, Class C

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 5 weeks (192 hours).

Exhibit Dates: 4/70–Present.

Objectives: To train personnel to operate and maintain aviation fueling systems.

Instruction: Lectures and practical exercises in the operation and maintenance of aviation fueling systems, including shore-based refueling equipment, fuel quality control and portable equipment, aviation gasoline/JP-5 fuel systems, operation of the aviation fuel systems, administrative and safety precautions, pumps and filters, and purifiers and fueling stations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1704-0200

Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 9 weeks (368 hours).

Exhibit Dates: 10/70–Present.

Objectives: To train selected officers to operate, inspect, and maintain the C-13 catapults and Mark 7 arresting gear and barricades.

Instruction: Lectures and practical exercises in the operation, inspection, and maintenance of the C-13 catapults and the Mark 7 arresting gear and barricades. Course includes the fundamentals of launch and recovery, aircraft launching and recovery equipment, and aircraft launching and recovery procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/74).

NV-1704-0201

F/RF-4B J79-GE-8/8A Cold Section Repair

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel in intermediate cold-section repair.

Instruction: Lectures and practical exercises in cold-section repair. Course includes inspection, disassembly, cleaning, minor repair, and assembly techniques and procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (8/74).

NV-1704-0202

F/RF-4B J79-GE-8/8A Hot Section and Related Systems Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel to maintain the F/RF-4B J79-GE-8/8A hot section and related systems.

Instruction: Lectures and practical exercises in the maintenance of the F/RF-4B J79-GE-8/8A hot section and related systems. Course includes inspection, disassembly, cleaning, minor repair, and assembly techniques and procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (8/74).

NV-1704-0203

A-7E C-8185 Armament Station Control Unit Intermediate Maintenance

Course Number: C-646-3788.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/72–Present.

Objectives: To train enlisted personnel to maintain equipment on C-8185 armament station control units.

Instruction: Lectures and practical exercises in the maintenance of equipment on C-8185 armament station control units, including inspection, disassembly, repair, troubleshooting, and reassembly techniques and procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (8/74).

NV-1704-0204

UH-1N Power Package Organizational Maintenance

Course Number: C-600-3357.

Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fleet maintenance personnel to maintain the UH-1N power package.

Instruction: Lectures and practical exercises in the maintenance of the UH-1N power package. Course includes power package removal; installation and alignment; Hg control system; Nf control system; and the fuel and oil system.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in industrial or mechanical technology program (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in industrial or mechanical technology program (6/74).

NV-1704-0205

HH-2D/SH-2D Automatic Stabilization Equipment Intermediate Maintenance

Course Number: C-602-3391.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (92 hours).

Exhibit Dates: 8/73–Present.

Objectives: To train enlisted personnel to maintain and test the automatic stabilization equipment in HH-2D/SH-2D helicopters.

Instruction: Theoretical and practical training on gyro, accelerometer, synchro, amplifier, mod-demod, and synchronizer subsystems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft electronic maintenance laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft electronic maintenance laboratory (6/75).

NV-1704-0206

P-3 Structures, Hydraulic Power and Flight Controls Organizational Maintenance

Course Number: C-603-3531.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 5/73–Present.
Objectives: To provide update training in maintenance procedures for the hydraulics and flight control systems on P-3 aircraft.
Instruction: Practical training in hydraulics, electro-mechanical units, flight control system operation, and assembly and rigging.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulic and general maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulic and general maintenance (6/75).

NV-1704-0207

UH-1N Electrical Systems Organizational Maintenance

Course Number: C-602-3354.
Location: Air Maintenance Training Detachment, Cp. Pendleton, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 9/73–Present.
Objectives: To train enlisted personnel in the maintenance and repair of the UH-1N helicopter electrical system.
Instruction: Instruction in DC power distribution, AC power systems, batteries, wiring diagrams, and warning circuits.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft electrical maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft electrical maintenance (6/75).

NV-1704-0208

1. Aircrew Survival Equipmentman, Class C7
2. Advanced Aircrew Survival Equipmentman
(Aircrew Survival Equipmentman School, Class B)

Course Number: C-602-2011.
Location: Air Technical Training Center, Lakehurst, NJ.
Length: *Version 1:* Self-paced 11 weeks (330 hours). *Version 2:* 13 weeks (260–512 hours).
Exhibit Dates: *Version 1:* 5/74–Present. *Version 2:* 6/68–4/74.
Objectives: To provide personnel with the comprehensive theoretical, practical, and administrative background necessary to perform duties in operating squadrons.
Instruction: Lectures and practical exercises in aircraft maintenance and material management; major and minor repairs on sewing machines; liquid oxygen; rigid seat survival seats and oxygen systems test stands; oxygen regulators; and advanced parachutes.
Credit Recommendation: In the vocational certificate category, 2 semester hours in industrial management, 5 in aerotechnology, and 1 in sewing machine repair and operation (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in industrial management and 3 in aerotechnology (5/74).

NV-1704-0209

F-14A Environmental/Escape System Specialist (Crew Leader) Organizational Maintenance

Course Number: C-602-3898.
Location: Air Maintenance Training Detachment, Miramar, CA.
Length: 4 weeks (175 hours).
Exhibit Dates: 9/73–Present.
Objectives: To train technicians as supervisory personnel in the maintenance and operation of F-14 aircraft environmental/escape systems.
Instruction: Instruction in pneumatics, pressurization, air conditioning and refrigeration, high pressure air and liquid principles, liquid oxygen phenomena, and pressure suit operation.
Credit Recommendation: In the vocational certificate category, 3 semester hours in aircraft pressurization and air conditioning systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft pressurization and air conditioning systems maintenance (6/75).

NV-1704-0210

F-14A Environmental and Escape Systems Technician (Crew Member) Organizational Maintenance

Course Number: C-602-3899.
Location: Air Maintenance Training Detachment, Miramar, CA.
Length: 3–4 weeks (140 hours).
Exhibit Dates: 4/73–Present.
Objectives: To train technicians in the maintenance and operation of F-14 aircraft environmental/escape systems.
Instruction: Instruction in pneumatics, pyrotechnic components, pressurization systems, air conditioning, liquid oxygen handling, and servicing.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft pressurization and air conditioning systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft pressurization and air conditioning systems maintenance (6/75).

NV-1704-0211

F-14A Organizational Maintenance Supervisor's Familiarization

Course Number: C-000-3896.
Location: Air Maintenance Training Detachment, Miramar, CA.
Length: 2 weeks (70 hours).
Exhibit Dates: 8/73–Present.
Objectives: To train supervisory personnel in the evaluation and assignment of maintenance tasks relating to the F-14 aircraft.
Instruction: Limited instruction on basic aircraft topics including electrical, hydraulic, flight control, power plant, avionics, and weapon control systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in general aircraft maintenance (6/75).

NV-1704-0212

F-14A Power Plant and Related System Organizational Maintenance Technician (Crew Member)

Course Number: C-601-3896.
Location: Air Maintenance Training Detachment, Miramar, CA.
Length: 3 weeks (105 hours).
Exhibit Dates: 8/73–Present.
Objectives: To train enlisted personnel to perform organizational level maintenance on the F-14 aircraft fuel system and power plant components.
Instruction: Instruction in fuel systems, including tanks, plumbing, pumps, vents, pressurization, electrical caution and warning systems; and in power plant topics including starting and ignition systems, lubrication, control rigging, and troubleshooting.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft fuel systems and turbine engine maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft fuel systems and turbine engine maintenance (6/75).

NV-1704-0213

First Tour Pilot P-3C Communications Operator

Course Number: D-2D-0011.
Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.
Length: 2 weeks (67 hours).
Exhibit Dates: 4/68–Present.
Objectives: To train first tour pilots to qualify as airborne communications operators.
Instruction: Classroom instruction in basic communications, message preparation, theory of radio wave propagation and antenna characteristics, and operation of aircraft communications systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in communications (6/75).

NV-1704-0214

F-14 Weapons System Technician Organizational Maintenance

Course Number: C-112-3896.
Location: Air Maintenance Training Detachment, Miramar, CA.
Length: 6–7 weeks (259 hours).
Exhibit Dates: 11/73–Present.
Objectives: To train enlisted personnel to maintain specific weapons systems on the F-14 aircraft.
Instruction: Instruction in system functional operation, checkout procedures, test equipment utilization, and safety procedures. Emphasis is placed on data processing, data links, transmitters, receivers, pulse techniques, and missile guidance fundamentals.
Credit Recommendation: In the vocational certificate category, 4 semester hours in aviation electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in aviation electronics laboratory (6/75).

NV-1704-0215

F-14A Airframe and Hydraulic Systems Specialist (Crew Leader) Organizational Maintenance

Course Number: C-602-3900.
Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3–4 weeks (140 hours).

Exhibit Dates: 9/73–Present.

Objectives: To train personnel in the operation and maintenance of the F-14 aircraft hydraulic system and related subsystems.

Instruction: Instruction in hydraulic principles and equipment and specific training in systems peculiar to the F-14 aircraft.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulic systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulic systems maintenance (6/75).

NV-1704-0216

F-14A Airframe and Hydraulic Systems Technician (Crew Member) Organizational Maintenance

Course Number: C-602-3901.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (122 hours).

Exhibit Dates: 7/73–Present.

Objectives: To train enlisted personnel in the operation and maintenance of the F-14 hydraulic systems and related subsystems.

Instruction: Instruction in hydraulic system components; rigid and flexible hydraulic lines; fittings; detailed coverage of systems such as spoiler, radome, refueling probe, ram air door, and gun drive air inlet; and maintenance of landing gear and brake systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulics maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulics maintenance (6/75).

NV-1704-0217

F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician

Course Number: C-102-3896.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 5 weeks (196 hours).

Exhibit Dates: 11/73–Present.

Objectives: To train enlisted personnel in the maintenance of the communications, navigation, and electronic warfare systems on the F-14 aircraft.

Instruction: Specialized instruction on radar beacon systems, UHF communications, navigation subsystems, and electronic warfare systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in aircraft electronic and navigation equipment maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in aircraft electronic and navigation equipment maintenance (6/75).

NV-1704-0218

F-14A Electrical Systems Technician (Crew Member) Organizational Maintenance

Course Number: C-602-3897.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3–4 weeks (140 hours).

Exhibit Dates: 8/73–Present.

Objectives: To train enlisted personnel in the maintenance of electrical systems on the F-14 aircraft.

Instruction: Lectures and practical exercises on applicable test equipment, publications, and safety procedures. Specific topics include circuit theory of power supply, lighting, safety, armament, and control assemblies.

Credit Recommendation: In the vocational certificate category, 3 semester hours in aircraft electrical repair and maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft electrical repair and maintenance (6/75).

NV-1704-0219

Naval Flight Officer P3C Communications Operator

Course Number: D-2D-0012.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 4 weeks (134 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train flight officers (non-pilots) to be airborne communications officers.

Instruction: Lectures and practical exercises in basic communications, teletype operation, message preparation, theory of radio wave propagation and antenna characteristics, and operation of aircraft communications systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications (6/75).

NV-1704-0220

Air Controlman—Carrier Air Traffic Control Center Utilization—Operator

Course Number: K-222-0051.

Location: Fleet Combat Direction Systems Training Center, Pacific, San Diego, CA.

Length: 5 weeks (140 hours).

Exhibit Dates: 7/74–Present.

Objectives: To train personnel to perform various aircraft operations duties aboard aircraft carriers.

Instruction: Lectures and practical exercises in aircraft carrier organization and administration; shipboard aircraft handling; and shipboard flight operations and associated electronic equipment, including IFF, radar, and TACAN.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1704-0221

F-14 Armament Systems Maintenance Technician (Crew Member) Organizational Maintenance

Course Number: C-646-3896.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 11/73–Present.

Objectives: To train enlisted personnel in the loading, servicing, and maintenance of the F-14 weapons system.

Instruction: Practical exercises in weapons loading, safety procedures, and use of specialized equipment peculiar to the F-14 weapons system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1704-0222

EA-6B J-52-P-408 Power Plants and Related Systems Organizational Maintenance

Course Number: C-601-3762.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/73–Present.

Objectives: To train enlisted personnel in the servicing and maintenance of the EA-6B aircraft power plants.

Instruction: Practical exercises using test-analyzing equipment, engine performance test criteria, and fuel system malfunction analysis.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft power plant maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft power plant maintenance (6/75).

NV-1704-0223

EA-6B Hydraulics and Flight Control Organizational Maintenance

Course Number: C-602-3779.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/73–Present.

Objectives: To train enlisted personnel to maintain the hydraulic system on the EA-6B aircraft.

Instruction: Lectures and practical exercises in the maintenance of all hydraulic systems and components of the EA-6B aircraft including the use of test equipment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft hydraulic systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft hydraulic systems maintenance (6/75).

NV-1704-0224

E-2B/C-2A Aviation Electrician Organizational Maintenance

Course Number: C-602-3479.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (118 hours).

Exhibit Dates: 5/73–Present.

Objectives: To train enlisted personnel to maintain the electrical system on the E-2B/C-2A aircraft.

Instruction: Lectures and practical exercises in AC/DC power systems, de-icing, pressurization, air conditioning, and instrument and automatic flight control systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft electrical maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft electrical maintenance (6/75).

NV-1704-0225

E-2B ATDS Operator (Naval Flight Officer)

(E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer))

Course Number: D-2D-0016.

Location: Carrier Airborne Early Warning Training Squadron 120, Norfolk, VA.

Length: 16 weeks (173 hours).

Exhibit Dates: 2/74–Present.

Objectives: To provide advanced training for flight officers (non-pilots) in the airborne tactical data system incorporated in the E-2B aircraft.

Instruction: Instruction includes ground training on weapon system operation and flight training in the utilization of the weapon system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1704-0226

E-2B Airborne Tactical Data Systems (E-2B Naval Flight Officer)

Course Number: E-2D-0201.

Location: Carrier Airborne Early Warning Training Squadron 110, North Island, CA.

Length: 20-30 weeks.

Exhibit Dates: 1/73-Present.

Objectives: To prepare flight officers (non-pilots) and student flight officers for duty in the E-2B airborne tactical data system.

Instruction: Student flight officers complete 10 weeks of air intercept control training and are designated as Air Intercept Controllers before entering the final 20 weeks of training. Classroom and flight training includes laboratory and exercise simulation in tactical data system operations, antisubmarine tactics, equipment operation, electronic theory, air intelligence, communications, and target identification and intercept.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/75).

NV-1704-0227

E-1B Power Plants and Related Systems Organizational Maintenance

Course Number: C-601-3456; C-601-14.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/68-Present.

Objectives: To train enlisted personnel in the maintenance procedures for the R1820-82A reciprocating engine.

Instruction: Theory and practical exercises in maintenance techniques used on reciprocating engines, including removal and installation, operational checks, troubleshooting, and related systems (external oil, propeller, fuel, carburetor, ignition) maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft power plant and reciprocating engine maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in aircraft power plant and reciprocating engine maintenance (6/75).

NV-1704-0228

Avionics Repairman, Class C

Course Number: C-100-2014.

Location: Air Technical Training Center, Memphis, TN.

Length: 5 weeks (167 hours).

Exhibit Dates: 11/73-Present.

Objectives: To provide basic avionics/electronics organizational maintenance training to selected Marine Corps personnel so that they may assume the duties of an Avionics Repairman in an Organizational Maintenance Activity (OMA).

Instruction: Lectures and practical exercises to include instruction in aircraft electronic systems, soldering, cable fabrication, test equipment, electrical systems, electrical/electronic components, electrical and electronic fundamentals, and procedures and techniques required to service and repair avionics systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in basic avionics/electronics (6/75).

NV-1704-0229

AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E)

Course Number: C-104-3784; C-150-3785.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 12 weeks (480 hours).

Exhibit Dates: 7/73-Present.

Objectives: To provide instruction in the calibration and maintenance of a specific electronic test set.

Instruction: Lectures and practical exercises in troubleshooting, circuit analysis and repair, maintenance, and calibration of the AN/AVM-11 (V) HUD test set. Instruction covers service unit analysis, control unit analysis, line switch unit, and general and special purpose functional test units.

Credit Recommendation: In the vocational certificate category, 6 semester hours in advanced avionics maintenance (6/75).

NV-1704-0230

AN/ASH-20 (V) Flight Recorder-Locator System Intermediate Maintenance

Course Number: C-102-3601.

Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/73-Present.

Objectives: To provide instruction in the maintenance of flight recorder-locator systems to include analysis of the system, subsystems, and repairable components.

Instruction: Practical application of learned procedures for checkout, adjustment, troubleshooting, and repair of electronic system and circuits, including battery charger, signal data-sound recorder, digital/analog converters, encoders, and microphone amplifiers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic flight recorder maintenance (6/75).

NV-1704-0231

F-4J AN/AWG-10 Missile Control System (Enlisted) Familiarization

Course Number: C-121-012.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/69-Present.

Objectives: To provide enlisted personnel with familiarization with the F-4J missile control system.

Instruction: Lectures and practical exercises in the operation and testing of an aircraft missile control system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1704-0232

E-2B Weapon System Trainer (WST)

Course Number: E-2D-0202.

Location: Carrier Airborne Early Warning Training Squadron 110, Miramar, CA.

Length: 5 weeks (152 hours).

Exhibit Dates: 1/70-Present.

Objectives: To train personnel to utilize the full capabilities of the E-2B weapon system.

Instruction: Lectures and practical exercises in introduction to simulator; use of laboratory instruments including scope controls, data entry systems and intercept control displays; and interpretation of intercept and tracking displays.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (6/75).

NV-1704-0233

E-1B Naval Flight Officer and Aircrewman

Course Number: D-2D-0017; D-221-0016.

Location: Carrier Airborne Early Warning Training Squadron 120, Norfolk, VA.

Length: 16 weeks (200 hours).

Exhibit Dates: 1/70-Present.

Objectives: To train personnel to operate and maintain the APS-82 radar and associated systems and to perform any E-1B mission.

Instruction: Lectures and practical exercises to include E-1B avionics systems and general missions, and maintenance and troubleshooting procedures on specialized electronic systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (6/75).

NV-1704-0234

1. Aircrew Survival Equipmentman, Class A
2. Basic Aircrew Survival Equipmentman
   (Aircrew Survival Equipmentman, Class A)
   (Parachute Rigger, Class A)
3. Parachute Rigger (Maintenance), Class A

Course Number: *Version 1:* C-602-2010. *Version 2:* C-602-2010. *Version 3:* None.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: *Version 1:* Self-paced 10 weeks (300 hours). *Version 2:* 15-18 weeks (600-716 hours). *Version 3:* 7 weeks (280 hours).

Exhibit Dates: *Version 1:* 5/74-Present. *Version 2:* 8/65-4/74. *Version 3:* 3/56-7/65.

Objectives: To provide the basic skills and knowledge necessary to maintain survival equipment and associated machinery.

Instruction: *All Versions:* Classroom instruction in the operation and maintenance of aircraft, oxygen, and carbon dioxide systems and survival equipment. *Version 1:* Topics include aviation fundamentals; basic and advanced parachute skills and techniques; and sewing machine and fabric work involving machine operation, fabric layout, and sewing projects.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in aeronautical technology and 2 in sewing and machinery (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aeronautical technology (5/74). *Version 2:* In the vocational certificate category, 5 semester hours in aeronautical technology and 2 in sewing and machinery (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aeronautical technology (5/74). *Version 3:* In the vocational certificate category, 3 semester hours in oxygen/carbon dioxide equipment and pressure suits (5/74).

NV-1704-0235

H-53 Electrical and Instrument Systems Organizational Maintenance

Course Number: C-602-3444.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/70–Present.

Objectives: To provide instruction in the organizational level maintenance of electrical and instrument systems of the H-53 aircraft.

Instruction: Practical application of H-53 systems familiarization topics and transistor fundamentals in the operation, maintenance, and servicing of the aircraft electrical and instrument systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft electrical and instrument systems maintenance (6/75).

NV-1704-0236

H-53 Electrical and Instruments Intermediate Maintenance

Course Number: C-602-3441.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/70–Present.

Objectives: To train personnel in the operating, servicing, and maintenance of the H-53 aircraft instruments system.

Instruction: Lectures and practical exercises in the application of transistor fundamentals to power systems, light systems, instruments, heaters, and controllers. Topics include block diagram description and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical and instrument maintenance (6/75).

NV-1704-0237

C-130 Aircraft Mechanic Organizational Maintenance

Course Number: C-600-3502.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 8/73–Present.

Objectives: To provide instruction in the organizational level maintenance of the Lockheed C-130 turbo-prop (heavy transport) aircraft.

Instruction: Classroom and practical instruction in the latest maintenance techniques, modifications and alterations, systems operation, and servicing of the aircraft.

Credit Recommendation: In the vocational certificate category, 3 semester hours in advanced aircraft maintenance and repair (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced aircraft maintenance and repair (6/75).

NV-1704-0238

Aviation Machinist's Mate H (Helicopter), Class A

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 12 weeks (464 hours).

Exhibit Dates: 10/56–12/68.

Objectives: To train selected Marine Corps personnel to maintain helicopters.

Instruction: Lectures and practical exercises in the maintenance and mechanics of helicopters, to include power plant and line operation principles; fuel metering, ignition, rotor transmission, and flight control familiarization, function, operation, replacement, inspection, and servicing.

Credit Recommendation: In the vocational certificate category, 18 semester hours in helicopter mechanics (6/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in helicopter mechanics (6/74).

NV-1704-0239

Aviation Structural Mechanic, Class B

Course Number: None.

Location: Air Technical Training Center, Memphis, Millington, TN.

Length: 24–26 weeks (960–1040 hours).

Exhibit Dates: 9/57–9/65.

Objectives: To train personnel to perform as aviation structural mechanics.

Instruction: Lectures and practical exercises in fundamentals of mathematics and electricity, publications and reports, utilization and interpretation of schematic drawings, aircraft metals, welding, non-metallic materials, aircraft hydraulics, and airframes and operational maintenance.

Credit Recommendation: In the vocational certificate category, 18 semester hours in aircraft structural mechanics (6/76); in the lower-division baccalaureate/associate degree category, 9 semester hours in aircraft structural mechanics (6/76).

NV-1706-0001

Calculator Repair Class C
(Instrumentman (Calculator Repair), Class C)

Course Number: A-670-013.

Location: Service Schools Command, Great Lakes, IL.

Length: 18 weeks (555 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train petty officers to test, repair, overhaul, and maintain Friden, Marchant, and Monroe calculators.

Instruction: Lectures and practical exercises in the testing, repair, overhaul, and maintenance of Friden, Marchant, and Monroe calculators.

Credit Recommendation: In the vocational certificate category, 10 semester hours in instrument repair (8/74); in the lower-division baccalaureate/associate degree category, 10 semester hours in instrument repair (8/74).

NV-1706-0002

Teletypewriter TT-299 B/UG Watchstanders Refresher Maintenance

Course Number: L-160-011.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/69–Present.

Objectives: To train enlisted personnel to maintain and repair the TT-299 B/UG teletypewriter set.

Instruction: Lectures and practical exercises in the maintenance and repair of the TT-299 B/UG teletypewriter set. Course includes a detailed study of the electrical and mechanical features of the TT-299 B/UG teletypewriter and comprehensive coverage of typewriter maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in typewriter repair (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in typewriter repair (8/74).

NV-1706-0003

Advanced Office Machine Repair, Class C

Course Number: A-670-0027.

Location: Instrumentman Class C School, Great Lakes, IL.

Length: 25 weeks (780 hours).

Exhibit Dates: 6/72–6/77.

Objectives: To train personnel to maintain and repair office machines.

Instruction: Lectures and practical exercises in identifying, testing, diagnosing, repairing, overhauling, and adjusting specific types of adding machines, electric typewriters, and calculators.

Credit Recommendation: In the vocational certificate category, 10 semester hours in office machine maintenance (6/75); in the lower-division baccalaureate/associate degree category, 4 semester hours in office machine maintenance (6/75).

NV-1708-0001

River Assault Craft Training

Course Number: H-00-1500; H-000-1500.

Location: Inshore Operations Training Center, Vallejo, CA.

Length: 11 weeks (805 hours).

Exhibit Dates: 4/69–Present.

Objectives: To provide officers and enlisted personnel with the knowledge and skills necessary to perform river assault craft operations.

Instruction: Lectures and practical exercises in river assault craft operations, including navigation, boat-handling techniques, damage control and salvage, swimming, in-water survival training, gunnery and small arms operation, tactics, and counterinsurgency.

Credit Recommendation: In the vocational certificate category, 4 semester hours in transportation (2/74).

NV-1708-0002

Landing Craft Beach and Surf Salvage

Course Number: G-2E-6310; H-2E-5318; H-000-5318.

Location: Amphibious School, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To provide naval personnel qualified as second class swimmers with specialized training in the techniques and procedures of amphibious boat salvage operations.

Instruction: Lectures and practical work in light-tow and heavy salvage boats; performance of salvage operations on broached and stranded boats in and beyond the surf line; emergency ramp-raising procedures; minor repair techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in transportation or salvage operations (2/74).

NV-1708-0003

ADVANCED SUBMARINE QUARTERMASTER SCHOOL

Course Number: F-772-011.

Location: Submarine School, Groton, CT.

Length: 3 weeks (100 hours).

Exhibit Dates: 4/68–Present.

Objectives: To teach rated quartermasters with a minimum of one year in rate the classroom elements of the professional requirements of submarine piloting and navigation.

Instruction: Consists of piloting and anchoring techniques; determination of Loran lines; familiarity with compass, including causes, kinds, significance of, and compensation for, compass error; computation of sunrise, sunset, moonrise, and moonset; determination of lines of position by celestial observaton.

Credit Recommendation: In the vocational certificate category, 3 semester hours in water transportation (2/74).

NV-1708-0004

BASIC QUARTERMASTER, ENLISTED

Course Number: J-772-620.

Location: Fleet Training Center, Newport, RI.

Length: 5 weeks (163 hours).

Exhibit Dates: 7/68–Present.

Objectives: To train enlisted personnel in the basic principles and techniques of water navigation.

Instruction: Lectures and practical exercises in shipboard duties of the quartermaster and in navigation fundamentals, including nautical charts and chart projections; fundamentals of plotting; operation of magnetic and gyro compasses; the lateral buoy system; operation of various navigational instruments; and tides, currents, and weather.

Credit Recommendation: In the vocational certificate category, 3 semester hours in transportation (2/74).

NV-1708-0005

BASIC QUARTERMASTER

Course Number: K-772-2101.

Location: Fleet Training Center, San Diego, CA.

Length: 4 weeks (115 hours).

Exhibit Dates: 1/71–Present.

Objectives: To provide enlisted personnel with the knowledge of navigation required to qualify them to perform as quartermasters of the watch.

Instruction: Lectures and practical exercises in basic navigation, including nautical charts, navigation publications, tides and currents, time, weather, plotting application and instrument use, and various navigational aids.

Credit Recommendation: In the vocational certificate category, 3 semester hours in transportation (2/74).

NV-1708-0006

ASSAULT BOAT COXSWAIN

Course Number: H-813-5316; G-062-6358; G-813-6358.

Location: Naval Amphibious School, San Diego, CA; Naval Amphibious School, Norfolk, VA.

Length: 3 weeks (106–121 hours).

Exhibit Dates: 1/67–Present.

Objectives: To provide enlisted personnel with a basic knowledge of boat handling and assault boat operations.

Instruction: Lectures and practical demonstrations in basic boat-handling procedures, landing craft operations, assault boat operations, tactics and hand signals, ship-to-shore communications, and navigational aids.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-1708-0007

SHIPLOADING AND STOWAGE

Course Number: A-8C-0013.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train enlisted personnel to load, stow, and discharge cargo and to supervise others engaged in this activity.

Instruction: Lectures and practical exercises in the techniques of loading, stowing, and discharging cargo and in the supervision of such activities. Course includes cargo stowage, stevedoring, safety in cargo operations, stability in shiploading, and preplanning ship's cargo.

Credit Recommendation: In the vocational certificate category, 2 semester hours in shiploading and stowage (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in shiploading and stowage (7/74).

NV-1709-0001

1. PHOTOGRAPHER'S MATE SCHOOL, CLASS A, BASIC
2. PHOTOGRAPHER'S MATE SCHOOL, CLASS A
3. PHOTOGRAPHER'S MATE A (AERIAL CAMERAMAN)
   (Photographer's Mate G (Cameraman))

Course Number: *Version 1:* C-400-2011. *Version 2:* C-400-10. *Version 3:* None.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: *Version 1:* Self-paced 11–12 weeks (440 hours). *Version 2:* 15–18 weeks (614–720 hours). *Version 3:* 8–9 weeks (320–360 hours).

Exhibit Dates: *Version 1:* 11/74–Present. *Version 2:* 8/65–10/74. *Version 3:* 2/56–7/65.

Objectives: To provide personnel with a basic knowledge of the photographic work performed in the Navy, including photographic principles, camera operation, black and white and color film processing and printing, motion picture study, aerial photography, and camera maintenance.

Instruction: *All Versions:* An intensive study of photography and photographic principles, plus two weeks of military-oriented training; lectures and practical experiences with photographic theory, camera operation, lab operation, lab orientation, photo techniques, aerial photography, public affairs photography, small-format photography, color print photography, and motion picture photography. *Version 1:* Course uses modular, self-paced, individualized instruction as the primary instructional method with heavy emphasis on performance. Specific topics include exposure factors and controls, photographic materials, camera techniques, quality control, flash photography, studio photography, information and release photography, motion picture photography, color photography, and aerial photographic laboratory support.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in photography (1/77). *Version 2:* In the vocational certificate category, 6 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 6 semester hours in photography (12/68). *Version 3:* In the vocational certificate category, 3 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in photography (12/73); in the upper-division baccalaureate category, 3 semester hours in photography (12/68).

NV-1709-0002

PHOTOGRAPHIC OFFICERS (CLASS O)

Course Number: None.

Location: Naval Air Technical Training Unit, Pensacola, FL.

Length: 21 weeks (810 hours).

Exhibit Dates: 10/57–12/68.

Objectives: To provide selected officers with a knowledge of and skills in basic photography, including military-oriented air/sea applications.

Instruction: Basic integrated subjects, including administrative records, files, reports, and a study of electricity; general photography, including exposure, camera operation, photographic chemistry, and laboratory procedures; motion picture photography, including exposure, camera operation, and laboratory procedures; aerial photography, including aerial techniques, camera operation, laboratory operations; color photography, including techniques for both color prints and color transparencies.

Credit Recommendation: In the vocational certificate category, 6 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 6 semester hours in photography (12/68).

NV-1709-0003

1. PHOTOGRAPHER'S MATE SCHOOL (CLASS B)
2. PHOTOGRAPHER'S MATE SCHOOL (CLASS B)
   (Advanced Photographer's Mate School (Class B))

Course Number: *Version 1:* C-400-11. *Version 2:* None.

Location: Naval Air Technical Training Unit, Pensacola, FL.

Length: *Version 1:* 24 weeks (960 hours). *Version 2:* 21–22 weeks (840–896 hours).

Exhibit Dates: *Version 1:* 2/71–Present. *Version 2:* 10/57–1/71.

Objectives: To provide selected enlisted trainees with the knowledge and skills necessary to perform the duties of senior photographers, including operation and maintenance of service-type still, aerial, and motion picture cameras and related equipment, and production of photographs for public information purposes.

Instruction: Lectures and practical experiences in general photography, including administration and organization of Navy photography; orientation to scientific principles of photographic film and chemistry; applied photography in small, medium, and large format cameras; color slide and print photography; public affairs photography; aerial photography, including operation, reproduction, planning, and utilization of military-oriented missions; motion picture photography, including fundamentals, techniques, and equipment orientation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 3 semester hours in photography (12/73). *Version 2:* In the vocational certificate category, 6 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 6 semester hours in photography (12/68).

NV-1709-0004

1. Photographic Reconnaissance Officers, Class O
2. Photographic Reconnaissance Officers, Class O
3. Photographic Reconnaissance Officers, Class O
4. Photographic Reconnaissance (Class O)

Course Number: *Version 1:* C-2B-10. *Version 2:* None. *Version 3:* None. *Version 4:* None.

Location: Naval Air Technical Training Unit, Pensacola, FL.

Length: *Version 1:* 3 weeks (116 hours). *Version 2:* 2 weeks (98 hours). *Version 3:* 4 weeks (152 hours). *Version 4:* 21 weeks (840 hours).

Exhibit Dates: *Version 1:* 6/71–Present. *Version 2:* 1/69–5/71. *Version 3:* 11/63–12/68. *Version 4:* 10/57–10/63.

Objectives: To provide selected aviators, observers, or officers with an understanding of aerial photographic reconnaissance.

Instruction: *All Versions:* Principles of aerial photography; aerial photographic techniques; photographic intelligence. *Version 1:* Basic photography, including camera components, exposure, laboratory orientation, film processing, and printing. *Version 4:* Advanced photography.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in photography (12/73). *Version 2:* In the vocational certificate category, 2 semester hours in photography (12/73); in the upper-division baccalaureate category, 2 semester hours in photography (12/68). *Version 3:* In the vocational certificate category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 3 semester hours in photography (12/68). *Version 4:* In the vocational certificate category, 6 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 6 semester hours in photography (12/68).

NV-1709-0005

Special Photographic Course for Non-Photographic Personnel, Class C

Course Number: None.

Location: Naval Air Technical Training Unit, Pensacola, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/66–12/68.

Objectives: To provide trainees with the knowledge and skills of basic photography, including the operation of selected cameras, darkroom layout, and photoprocessing and exposure techniques.

Instruction: To accomplish the objectives the trainee must develop skills in the use of the Leica camera and its accessories, acquire an understanding of the principles of physics and chemistry as related to photography, have a working knowledge of exposures for natural and artificial light using black and white and color film, and apply skillfully the processing techniques for small negatives, and black and white and color reversal film. Studies also include darkroom layout, equipment planning, negative filing, and captioning. Special studies in aerial cameras for the production of oblique and vertical photographs, stereotriplets, and overlapping single- and multi-strip mosaics.

Credit Recommendation: In the vocational certificate category, 3 semester hours in photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in photography (12/73); in the upper-division baccalaureate category, 3 semester hours in photography (12/68).

NV-1709-0006

IOIC Photo Interpretation Officer

Course Number: D-3A-010.

Location: Reconnaissance Attack Squadron Three, Albany, GA.

Length: 5 weeks (200 hours).

Exhibit Dates: 5/69–Present.

Objectives: To provide officers with an understanding of the capabilities of the Integrated Operational Intelligence Center (IOIC), and to qualify them to interpret, analyze, and report aerial photographic missions through the use of a computer-oriented photographic station within the IOIC area aboard attack aircraft carriers.

Instruction: IOIC concepts; multisensor capabilities of the RA-5C aircraft; basic intelligence-gathering concepts; photographic interpretation station; computer programs related to photographic interpretation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in photographic interpretation (12/73).

NV-1709-0007

IOIC Photo Interpretation Operator

Course Number: D-150-015.

Location: Reconnaissance Attack Squadron Three, Albany, GA.

Length: 9 weeks (348 hours).

Exhibit Dates: 5/69–Present.

Objectives: To provide personnel with an understanding of the capabilities of the Integrated Operational Intelligence Center (IOIC), and to qualify them to interpret, analyze, and report aerial photographic missions through the use of a computer-oriented photographic station within the IOIC area aboard attack aircraft carriers.

Instruction: IOIC concepts; multisensor capabilities of the RA-5C aircraft; basic intelligence-gathering concepts; operation of the computer-oriented photographic station; computer programs related to photographic interpretation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in photographic interpretation (12/73); in the upper-division baccalaureate category, 3 semester hours in photographic interpretation (12/68).

NV-1709-0008

IOIC Photographic Processing/Maintenance

Course Number: D-150-014.

Location: Naval Intelligence Processing System Training Facility, Albany, GA.

Length: 5 weeks (175 hours).

Exhibit Dates: 5/69–Present.

Objectives: To provide enlisted personnel with specialized training which will enable them to efficiently process and reproduce photographic intelligence collected by RA-5C aircraft.

Instruction: Familiarization with current fleet photographic operations and procedures; basic photographic quality control techniques; operation and maintenance of continuous processors, printers, and related equipment; tone reproduction techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/73).

NV-1709-0009

1. Motion Picture School, Class C (Motion Picture Cameraman)
2. Motion Picture School, Class C

Course Number: *All Versions:* C-400-2010. *Version 2:* C-400-12.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: *Version 1:* Self-paced 11–12 weeks (440 hours). *Version 2:* 10–11 weeks (424–464 hours).

Exhibit Dates: *Version 1:* 10/76–Present. *Version 2:* 11/65–9/76.

Objectives: To provide students with the skills of motion picture filming and editing, as well as an understanding of the theory and practice of processing, printing, and sound-recording for motion picture film; and to familiarize the student with aerial and underwater motion picture photography, and television applications.

Instruction: *Version 1:* Course uses modular, self-paced, individualized instruction as the primary instructional method. Course topics cover photographic laboratory supervision, advanced motion picture photography, advanced motion picture shooting techniques, studio production, double system sound, sound documentary production, and television production. *Version 2:* Phase I: Studies in basic film craft will be a product of experiences in film continuity, composition, film assembly and editing techniques, special effects, and screen direction; studies in camera mechanism, optics, and maintenance, as well as film exposure, lens setting, filter theory, and reversal film usage. Phase II: In addition to Phase I, experience with Arriflex and Mitchell cameras will be applied to advanced lighting techniques, story development, script writing, production planning, and negative-positive editing, as well as color film techniques and theory. Phase III: Studies in high-speed, underwater, and aerial photography, as well as sound theory for single and double system production.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in cinematography or motion picture photography (1/77). *Version 2:* In the vocational certificate category, 3 semester hours in motion picture photography (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in motion picture photography (12/73); in the upper-division baccalaureate category, 3 semester hours in motion picture photography (12/68).

NV-1709-0010

Still Documentary Photography C1

Course Number: C-400-2022.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 6 weeks (218 hours).

Exhibit Dates: 10/76–Present.

Objectives: To provide training or updating of skills in producing picture stories for media release and the production of audiovisual slide presentations to support written presentations.

Instruction: The course uses modular self-paced individualized instruction as the primary instructional method. Course topics cover photographic laboratory supervision; documentary news photography, including caption writing, feature picture, basic news writing, spot news, layout and page makeup, picture story, and picture essay; and media selection, including presentation objectives analysis, audience analysis, content outline development, presentation method, storyboard development, master script, visual and narrative production, assembly and programming, general interest slide show, and multi-media presentation.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photojournalism or audio-visual (1/77).

NV-1709-0011

TACTICAL PHOTOGRAPHIC INTERPRETATION

Course Number: None.

Location: Photographic Interpretation Center, Washington, DC.

Length: 11 weeks (312 hours).

Exhibit Dates: 1/54–12/68.

Objectives: To train enlisted personnel to interpret aerial photographs for military purposes.

Instruction: Lectures and practical exercises in tactical photographic interpretation. Course includes required orientation of cameras and other equipment, mathematics, map and chart reading, and identification exercises of tactical or military items on aerial photographs.

Credit Recommendation: In the vocational certificate category, 3 semester hours in photographic interpretation (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in photographic interpretation (7/74); in the upper-division baccalaureate category, 3 semester hours in photographic interpretation (12/68).

NV-1709-0012

STRATEGIC PHOTOGRAPHIC INTERPRETATION

Course Number: None.

Location: Photographic Interpretation Center, Washington, DC.

Length: 10 weeks (238 hours).

Exhibit Dates: 1/54–12/68.

Objectives: To train enlisted personnel to interpret aerial photographs.

Instruction: Lectures and practical exercises in strategic photographic interpretation. Course includes photogeometrics and measurement, related mathematics, stereo comparagraph, and more extensive analysis and interpretation of aerial photographs for targeting purposes.

Credit Recommendation: In the vocational certificate category, 3 semester hours in photographic interpretation (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in photographic interpretation (7/74); in the upper-division baccalaureate category, 3 semester hours in photographic interpretation (12/68).

NV-1709-0013

IOIC PHOTOGRAPHIC PROCESSING OFFICER

Course Number: D-7F-010.

Location: Reconnaisance Attack Squadron Three, Albany, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 5/69–Present.

Objectives: To train officers to supervise a photographic laboratory.

Instruction: Lectures and practical exercises in IOIC photographic system orientation; photographic processing control, including sensitometry and desitometry; processing and support equipment; printers; equipment maintenance; and applications to fleet operations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in photographic processing or photofinishing on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in photographic processing or photofinishing on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, 2 semester hours in photographic processing or photofinishing on the basis of institutional evaluation (7/74).

NV-1709-0014

METRICAL PHOTOGRAPHIC INTERPRETATION

Course Number: None.

Location: Photographic Interpretation Center, Washington, DC.

Length: 14 weeks (401 hours).

Exhibit Dates: 1/54–12/68.

Objectives: To train enlisted personnel to interpret aerial photographs.

Instruction: Lectures and practical exercises in aerial photographic interpretation, including map orientation, appropriate mathematics, position determination, reconnaissance surveying, map and chart projections, photogeometrics, stereocomparagraph, cartography, and trimetrogon mapping.

Credit Recommendation: In the vocational certificate category, 3 semester hours in photographic interpretation (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in photographic interpretation (7/74); in the upper-division baccalaureate category, 4 semester hours in photographic interpretation (12/68).

NV-1709-0015

RADAR (TARGET) INTELLIGENCE

Course Number: Not available.

Location: Photographic Interpretation Center, Washington, DC.

Length: 11 weeks (440 hours).

Exhibit Dates: 4/54–12/68.

Objectives: To train enlisted personnel to interpret radar scope images and aerial photographs.

Instruction: Lectures and practical exercises in photograph analyzing for building density, height, types of structures; principles of radar reflection, distortion, and interpretation; and radar scope photographic intrepretation and plotting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in photographic interpretation (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in photographic interpretation (7/74); in the upper-division baccalaureate category, 4 semester hours in photographic interpretation (12/68).

NV-1709-0016

MEDICAL PHOTOGRAPHY TECHNIC
(Medical Photography Technician, Class C)

Course Number: B-400-10.

Location: Naval Medical School, Bethesda, MD.

Length: 24–26 weeks (900–1120 hours).

Exhibit Dates: 1/55–Present.

Objectives: To train enlisted personnel to take, process, and print black and white and color still and motion pictures relating to scientific, clinical, surgical, and pathological fields.

Instruction: Lectures and practical exercises in medical photography, including basic principles of photography, camera operation, optics, light meters, filters, film processing and darkroom procedures for both black and white and color films, photo copying, slide duplication and mounting, slide projection, medical-related photographic techniques, infrared and ultraviolet, photomicrography, cinematography, and motion picture projection.

Credit Recommendation: In the vocational certificate category, 4 semester hours in photography, 4 in medical photography (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in photography, 4 in medical photography (7/74); in the upper-division baccalaureate category, 4 semester hours in photography, 12 in medical photography (12/68).

NV-1709-0017

ILLUSTRATIVE PHOTOGRAPHY C1

Course Number: C-400-2021.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 6 weeks (212 hours).

Exhibit Dates: 10/76–Present.

Objectives: To provide training or skill updating in the areas of macrophotography and illustrative, architectural, and portrait photography.

Instruction: The course uses modular self-paced, individualized instruction as the primary instructional method. Course topics cover photographic laboratory supervision; illustrative photography, including the Kodak Ektamatic print processor, macrophotography, composition, and architectural photography; and studio lighting/portraiture.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photography (studio/architectural/portraiture) (1/77).

NV-1709-0018

PHOTOGRAPHIC LABORATORY TECHNICIAN C1

Course Number: C-400-2020.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 6 weeks (213 hours).

Exhibit Dates: 10/76–Present.

Objectives: To provide initial journeyman training or skills updating in color printing and processing, printing and processing machine operation, and chemical process quality control.

Instruction: The course uses modular self-paced, individualized instruction as the primary instructional method. Course topics cover photographic laboratory supervision; laboratory support equipment familiarization, including sensitometry, film speed, process effects and uniformity, chemical monitoring and process control, replenishment rates, statistical and sensitometric evaluation, gamma and tone reproduction; and color processing, including the master print, basket processing, visual evaluations, off-easel and on-easel spot evaluations, and calibration and indexing of color analyzer.

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in photography or photographic technician training (1/77).

NV-1710-0001

1. Boiler Technician, Class A1 (600 PSI)
2. Boiler Technician, Class A1 (1200 PSI)
3. Boilermen, Class A

Course Number: A-651-0010.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* Self-paced 7–8 weeks (364 hours). *Version 2:* Self-paced 8 weeks (448 hours). *Version 3:* 10–15 weeks (310–456 hours).

Exhibit Dates: *Version 1:* 1/74–Present. *Version 2:* 1/74–Present. *Version 3:* 5/63–12/73.

Objectives: To train enlisted personnel to operate, maintain, and repair marine boilers, pumps, and associated machinery.

Instruction: *All Versions:* Lectures and practical exercises in boiler maintenance and repair; distilling plant operation; fuel oil and auxiliary equipment operation, and fireroom operations, maintenance, and materiel management. Instruction includes basic mathematics, tools and materials, valves, and basic steam plant principles. *Version 1:* Instruction is self-paced. *Version 2:* Instruction is self-paced.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours as technical electives in automotive and mechanical programs and 5 in systems maintenance or related programs (9/77). *Version 2:* In the lower-division baccalaureate/associate degree category, 2 semester hours as technical electives in automotive and mechanical programs and 7 in systems maintenance or related programs (9/77). *Version 3:* Credit is not recommended because of the military specific nature of the course (4/74).

NV-1710-0002

Boilerman Enlisted Maintenance

Course Number: A-651-017.

Location: Destroyer School, Newport, RI.

Length: 4 weeks (120 hours).

Exhibit Dates: 12/69–Present.

Objectives: To train enlisted personnel to operate, inspect, and repair boilers.

Instruction: Lectures and practical exercises in the operation, inspection, and repair of boilers, including cleaning and overhaul procedures, steam cycle and theory, safety valves, fuel oil service pump, forced-draft blowers, burners and air registers, regulators and indicators, pumps and blowers, calibration, patching, and packing and gaskets.

Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1710-0003

Pressure Fired Boiler, Class C

Course Number: A-651-0014.

Location: Boilerman School, Philadelphia, PA.

Length: 6 weeks (180 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel who have had training in automatic boiler controls to perform as pressure-fired boilermen.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of pressure-fired boilers, including boiler design and components, supercharger and feed system, automatic combustion and feed controls, component calibration, boiler steaming and operation, and local control of boilers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in boiler operation and repair on the basis of institutional evaluation (4/74).

NV-1710-0005

Catapult, Arresting Gear, and Visual Landing Aids CVA (C-7/11 Catapults), Class C

(Catapult, Arresting Gear, and Visual Landing Aids (C-7/C-11 Catapults and Mk-7 Arresting Gear), Class C)

Course Number: Not available.

Location: *Version 1:* Air Technical Training Center, Lakehurst, NJ. *Version 2:* Air Technical Training Unit, Philadelphia, PA.

Length: 9 weeks (352–360 hours).

Exhibit Dates: 1/66–Present.

Objectives: To train personnel in the operation, inspection, and maintenance of C-7 and C-11 catapults and related equipment, Mk-7 arresting gear and barricades; visual landing aids (Fresnel Lens OLS Mk VI and Manual Meatball); and shore-based arresting gear.

Instruction: Lectures and practical exercises in operation, inspection, and maintenance of C-7 and C-11 catapults and related equipment; basic information relating to catapults, arresting gear and visual landing aids; steam catapults; steam system, C7/11 Mod 1; launching engine; retraction and tensioning engine; bridle tension system; control system; bridle arrestor engine and associated equipment; miscellaneous information and safety precautions; shore-based arresting gear; and Mk-7 arresting gear, Fresnel Lens Mk VI and Manual Meatball.

Credit Recommendation: In the vocational certificate category, 2 semester hours as a general elective in mechanical programs (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as a general elective in mechanical programs (7/74).

NV-1710-0006

Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C

(Catapult, Arresting Gear and Visual Landing Aids (C-13 Catapult and Mk-7 Arresting Gear), Class C)

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ; Air Technical Training Unit, Philadelphia, PA.

Length: 9 weeks (352–360 hours).

Exhibit Dates: 1/66–Present.

Objectives: To train enlisted personnel to operate, inspect, and maintain C-13 catapults and related equipment, Mk-7 arresting gear and barricades, visual landing aids, and shore-based arresting gear.

Instruction: Lectures and practical exercises in the operation, inspection, and maintenance of C-13 catapults and related equipment, Mk-7 arresting gear and barricade, visual landing aids, and shore-based arresting gear, including fundamentals of catapult operation and design, launching and recovery procedures; and description, nomenclature, and component operation of steam catapults.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0007

CVS Catapult, Arresting Gear, and Visual Landing Aids, Class C

Course Number: Not available.

Location: Air Technical Training Unit, Philadelphia, PA.

Length: 5 weeks (192 hours).

Exhibit Dates: 10/65–12/68.

Objectives: To train enlisted personnel to operate, inspect, and maintain H-8 catapults and related equipment, Mk 5 arresting gear and barricades, Mk 1 Mod 1 and Mk 6 Mod 1 visual landing aids, and shore-based arresting gear.

Instruction: Lectures and practical exercises in the operation, inspection, and maintenance of H-8 catapults and related equipment, Mk 5 arresting gear and barricades, Mk 1 Mod 1 and Mk 6 Mod 1 visual landing aids, and shore-based arresting gear, including principles and design of catapults, component operations, launching and recovery systems, control panel operation, and description and nomenclature of hydropneumatic and steam catapults.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0008

CVA Catapult Steam and Drain System, Class C

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 3 weeks (112 hours).

Exhibit Dates: 8/68–Present.

Objectives: To train enlisted personnel to operate, inspect, and maintain the CVA catapult's steam and drain systems and related components.

Instruction: Lectures and practical exercises in the operation, inspection, and maintenance of CVA catapult's steam and drain systems and related components, including fundamentals of steam catapults, types of steam catapults, system components, and operational procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0009

Catapult and Arresting Gear, Class C

Course Number: Not available.

Location: Air Technical Training Unit, Philadelphia, PA.

Length: 11 weeks (440 hours).

Exhibit Dates: 9/56–12/68.

Objectives: To train enlisted personnel to operate, maintain, and repair H-4, H-8, and C-11 catapults and related equipment, and the Mk 5 and Mk 7 arresting gear, barriers, and barricades.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of H-4, H-5, and C-11 catapults and related equipment, and Mk 5 and Mk 7 arresting gear, barriers, and barricades, including history and design of catapults, and description, nomenclature, operation, and preventive maintenance of hydropneumatic and steam catapults.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0010

CVA Catapult Electrician, Class C

Course Number: C-680-2013.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/71–Present.

Objectives: To train enlisted personnel who have backgrounds in electronics to operate and maintain CVA catapult electrical systems and related components.

Instruction: Lectures and practical exercises in the operation and maintenance of CVA catapult electrical systems and related components, including engine systems, retract and tension system, and control system; launching and retraction of steam catapults; circuits and electrical components in catapult control (motor, relays, synchros, indicators, sequence of operation); valve control; and catapult maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1710-0011

Automatic Combustion Control Maintenance

Course Number: A-651-021.

Location: Destroyer School, Newport, RI.

Length: 3 weeks (90 hours).

Exhibit Dates: 1/69–Present.

Objectives: To train enlisted personnel to maintain automatic combustion control equipment in boilers.

Instruction: Lectures and practical exercises in the maintenance of automatic combustion control equipment in boilers, including sensing elements, boiler and machinery dynamics, modes of control, measuring principles, calibration, signal tracing, component operation, and troubleshooting procedures.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1710-0012

Engineering Watch Officer

Course Number: G-4H-6191; G-651-6191.

Location: Amphibious Base, Little Creek, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train officers to be engineering watch officers on amphibious ships.

Instruction: Lectures on the operation of steam and diesel boilers, AC-DC generator systems, switchboard controls, electrical safety precautions, electromechanical systems operation, auxiliary equipment operation, and engineering administration.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0013

Prospective Engineering Officer Orientation

Course Number: A-4H-0024.

Location: Development and Training Center, San Diego, CA.

Length: 4 weeks (140 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train officers to operate and maintain steam-powered ship engine room equipment.

Instruction: Lectures and practical exercises in boilers and associated equipment operation and maintenance, including steam systems, turbines, electrical systems, evaporators, refrigeration, water pumps and valves, boiler controls, feed pump controls, recirculation systems, hydraulics, governors, and casualty control operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1710-0014

Marine Corps Short Airfield For Tactical Support, Class C

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 5 weeks (200 hours).

Exhibit Dates: 9/65–Present.

Objectives: To train enlisted personnel to install, inspect, operate, and maintain SATS launching and recovery equipment.

Instruction: Lectures and practical exercises in installation, inspection, operation, and maintenance of support equipment, including runway matting, generators, air compressors, cranes, fork lifts, anchors, and special tools; recovery equipment, including arresting gear and SATS barricades; launch equipment, including catapult systems, and control systems; and operational procedures and field operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1710-0015

Standard Tensioned Replenishment Alongside Methods (STREAM) Rigging and Passing
(UNREP Rigging Procedures)

Course Number: A-551-0025.

Location: Naval Schools Command, Treasure Island, CA.

Length: 3 weeks (95–105 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted personnel to operate a raw-tensioned, high-level sending system.

Instruction: Lectures and practical exercises in raw-tensioned, high-line system operation, including standard methods of replenishment at sea, preventive maintenance of station components, safety precautions, and emergency breakaway procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in rigging course (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in rigging course (4/74).

NV-1710-0016

UNREP Hydraulic and Mechanical Component Maintenance (Sending Units)

Course Number: A-551-0027.

Location: Naval Schools Command, Treasure Island, CA.

Length: 10 weeks (300 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted personnel to maintain the shipboard UNREP system's hydraulic and mechanical components.

Instruction: Lectures and practical exercises in basic electricity; basic hydraulics; winches; circuit analysis; sealing materials and gauges; circulatory systems, actuators, pumps, valves, and controls; hydraulic power unit, transfer head ram tensioner, multidirectional fork trunk, and sealed transmissions operation; and cargo and personnel transfer equipment operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in industrial or mechanical technology (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in industrial or mechanical technology (4/74).

NV-1710-0017

Equipment Operators, Class A (EO"A")

Course Number: *All Versions:* A-730-0010. *Version 2:* A-730-0012.

Location: *All Versions:* Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS. *Version 2:* Construction School, Davisville, RI.

Length: *Version 1:* 9 weeks (261 hours). *Version 2:* 12 weeks (360 hours).

Exhibit Dates: *Version 1:* 11/74–Present. *Version 2:* 11/67–10/74.

Objectives: To train enlisted personnel to operate, adjust, and service heavy construction equipment.

Instruction: Lectures and practical exercises in automotive vehicle, front-end loader, forklift, grader, and crawler tractor operation, adjustment, and servicing, including internal-combustion engine basic principles; fuels and lubricants; earthwork fundamentals; equipment production; hauling, loading, and lifting equipment adjustment, operation, and servicing; and soil compactors, crawler tractors, and tractor-drawn scrapers operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in heavy construction equipment (7/76); in the lower-division baccalaureate/associate degree category, 2 semester hours in construction/civil technology (7/76). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in heavy construction program, 3 in civil technology program (4/74).

NV-1710-0018

1. Equipment Operator, Class J (EO"J")
2. Equipment Operator, Class B (EO"B")

Course Number: A-730-0011.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.

Length: *Version 1:* 16 weeks (489 hours). *Version 2:* 16–18 weeks (480–540 hours).

Exhibit Dates: *Version 1:* 9/75–Present. *Version 2:* 11/59–8/75.

Objectives: To train equipment operators to supervise personnel in construction, earth moving, road building, rock crushing, and asphalt mixing and paving operations.

Instruction: *Version 1:* Instruction includes soil identification; earthwork computations; operation of rock crushers; asphalt plants and pavers; operation and maintenance of cranes, crawlers, wheel tractors, and scrapers; and roadway foundations. *Version 2:* Lectures and practical exercises in instructional techniques, job planning, dispatching, records and reports; and earth moving, road building, rock crushing, and asphalt mixing and paving equipment nomenclature, lubrication, preventive maintenance, safety procedures, adjustments, and repairs; and graders, crawlers, tractors, scrapers, and cranes.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 5 semester hours in highway construction or civil technology (7/76). *Version 2:* In the lower-division baccalaureate/associate degree category, 6 semester hours in heavy construction and heavy equipment (4/74).

NV-1710-0019

1200 PSI Main Propulsion Assistant

Course Number: A-4H-021.
Location: Destroyer School, Newport, RI.
Length: 12 weeks (360 hours).
Exhibit Dates: 7/69–Present.
Objectives: To train enlisted personnel to repair boilers.
Instruction: Lectures and practical exercises in boiler principles and construction, fuel oil systems, air and drain system, turboelectric plants, distilling plant laboratory, auxiliary steam systems, engineering administration, and boiler maintenance and repair procedures.
Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1710-0020

1200 PSI Enlisted Maintenance

Course Number: A-651-020.
Location: Destroyer School, Newport, RI.
Length: 5 weeks (150 hours).
Exhibit Dates: 7/69–Present.
Objectives: To train enlisted personnel to inspect and maintain boilers.
Instruction: Lectures and practical exercises in boiler inspection and maintenance, including steam theory, boiler overhaul, boiler watersides and firesides maintenance, tube renewal and plugging, precision tools operation, fuel oil heaters and coolers, and valve and pump repair.
Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1710-0021

1200 PSI BT Orientation/Operation

Course Number: A-651-0037.
Location: Boilerman School, San Diego, CA.
Length: 3-4 weeks (106-140 hours).
Exhibit Dates: 11/72–Present.
Objectives: To train enlisted personnel to operate shipboard boilers and associated equipment.
Instruction: Lectures and practical exercises in shipboard boiler construction and operation, fireroom procedures, damage control, lighting off and securing main boilers, and underway watch standing and casualty control.
Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in building maintenance (4/74).

NV-1710-0022

1200 PSI Prospective Engineering Officer

Course Number: A-4H-020.
Location: Destroyer School, Newport, RI.
Length: 4 weeks (120 hours).
Exhibit Dates: 12/69–Present.
Objectives: To train enlisted personnel to inspect and maintain boilers and related systems.
Instruction: Lectures and practical exercises in the inspection and maintenance of boilers and related systems, including component and system analysis, modes of control and control loops, measuring principles, and electrical and propulsion casualty control.
Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1710-0023

1. LST 1179/1182 Class Controllable Pitch Propeller and Propulsion Control System, Class C1
2. Enginemen, Class C, LST 1179 Class Controllable Pitch Propeller and Propulsion Control System

Course Number: A-652-0055.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: *Version 1:* 4 weeks (150 hours). *Version 2:* 3 weeks (102 hours).
Exhibit Dates: *Version 1:* 6/77–Present. *Version 2:* 5/73–5/77.
Objectives: To train enlisted personnel who have taken a basic engineman course to operate, maintain, and troubleshoot variable-pitch ship propellers and associated control equipment.
Instruction: Lectures and practical exercises in the operation, maintenance, and troubleshooting of variable-pitch ship propellers and associated control equipment, including introduction to hydraulics and pneumatics, analysis of various circuits, component assembly, and operation of specific variable-pitch propellers and associated controls.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in automotive/mechanical technology (9/77). *Version 2:* In the vocational certificate category, 2 semester hours as an elective in mechanical technology (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in mechanical technology (4/74).

NV-1710-0024

Steam Components (Enlisted)

Course Number: F-000-035.
Location: Naval Submarine School, Groton, CT.
Length: 2 weeks (60 hours).
Exhibit Dates: 11/72–Present.
Objectives: To train enlisted personnel to operate and maintain steam components.
Instruction: Lectures and practical exercises in the operation and maintenance of steam components, including instruction on steam reducing valves, steam traps, flexatallic gaskets, manual valves, hotwell level control systems, steam generator relief and pilot automatic drain valves, hydrostatic testing, feed water control valves, steam generator cutout valve, condenser repair, steam root valve manifold, and steam generator sight glasses.
Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in building maintenance (4/74).

NV-1710-0025

Submarine Low Pressure and Vapor Compression Distilling Units, Enlisted

Course Number: F-652-026.
Location: Submarine School, Groton, CT.
Length: 2 weeks (60 hours).
Exhibit Dates: 11/72–Present.
Objectives: To train enlisted personnel to operate, maintain, and repair low-pressure and vapor compression distilling units.
Instruction: Lectures and practical exercises in the operation, maintenance, and repair of low-pressure and vapor pressure distilling units, including operation and troubleshooting of low-pressure distilling steam systems, valves and meters, pumps, traps, condensers, gages, and compressors, and similar components of the vapor pressure distilling system.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0026

Ordnance Handling Equipment Intermediate Maintenance

Course Number: C-646-3119.
Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, Alameda, CA; Air Maintenance Training Detachment, North Island, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 8/71–Present.
Objectives: To train enlisted personnel to maintain ordnance-handling equipment at the intermediate level.
Instruction: Lectures and practical exercises in the maintenance of ordnance-handling equipment, including operation, servicing, and inspection of specific skids, bomb hoists, and bomb trucks.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1710-0027

Utilitiesman, Shore Based Boiler Controls, Class C

Course Number: A-720-0022.
Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.
Length: 7 weeks (222 hours).
Exhibit Dates: 11/72–Present.
Objectives: To provide the enlisted technician with advanced technical skills and knowledge in electrical and pneumatic controller systems components, safety switches, and testing meters to troubleshoot, repair, operate, and maintain steam heating boilers.
Instruction: Lectures and practical exercises in boiler equipment fittings and controls, basic electricity, electrical circuits, automatic and pneumatic controls.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity, 2 in electrical circuitry, and 1 in boiler controls (7/76).

NV-1710-0029

Catapult, Arresting Gear and Visual Landing Aids (CVS) (H-8 Catapults and Mk-5 Arresting Gear)

Course Number: Not available.
Location: Air Technical Training Center, Lakehurst, NJ.
Length: 4 weeks (176 hours).
Exhibit Dates: 11/68–Present.
Objectives: To train enlisted personnel to operate, inspect, and maintain H-8 catapults and related equipment, Mk-5 arresting gear and barricades, and specific visual landing aids and shore-based arresting gear.
Instruction: Lectures and practical exercises in the operation, inspection, and maintenance of H-8 catapults and related equipment, Mk-5 arresting gear and barricades, and specific visual landing aids and shore-based arresting gear, including catapult principles and design, nomenclature, hy-

draulic principles, and assembly, components, and analysis of specific equipment and systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1710-0030

Launcher Technician (Tender)

Course Number: A-733-0017.

Location: Guided Missiles School, Dam Neck, VA.

Length: 2 weeks (72 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train launcher technicians in the operation and maintenance of fleet ballistic missile submarine tenders, and missile-handling equipment.

Instruction: Lectures and practical exercises on the operation and maintenance of the missile-handling equipment found on fleet ballistic missile submarine tenders, including basic theory of handling equipment Mks 4 and 5, description of the mechanical and electrical characteristics of handling equipment components, preventive and corrective maintenance procedures, advanced theory of handling equipment Mks 4 and 5, logic elements used for control and sequencing of events for the Westinghouse moist units (Mks 1 and 2), and their functional operation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1710-0031

600 BT Maintenance

Course Number: A-651-0023.

Location: Development and Training Center, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train personnel to perform as boiler technicians.

Instruction: Lectures and practical exercises in the repair and maintenance of 600-psi boilers and associated auxiliary machinery and equipment, including precision measurement instruments, boiler tube work, boiler refractory, boiler safety valves, single-element feed regulators, forced-draft blowers, fuel oil service pump turbine, Leslie C/P governor, fuel oil service pump, reciprocating pumps, and hydrostatic tests.

Credit Recommendation: In the vocational certificate category, 2 semester hours in building engineering or building maintenance (5/74).

NV-1710-0032

1200 PSI BT Maintenance (Boilerman)

Course Number: A-651-0031.

Location: Boilerman School, San Diego, CA.

Length: 8 weeks (280 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train rated boiler technicians to maintain the 1200 PSI boilers and associated auxiliary machinery.

Instruction: Lectures and detailed practical instruction in the operational principles, construction, maintenance, and repair of the 1200 PSI steam generator and supporting auxiliary fireroom machinery, including boiler casings, boiler refractories, blueprints, precision measuring instruments, fire pump, boiler safety valves, distillate conversion, fuel oil service pump, Worthington main feed pump, forced-draft blower (carrier), governors and reducing valves, and forced-draft blower (Hardie-Tynes).

Credit Recommendation: In the vocational certificate category, 5 semester hours in industrial technology, or 5 in building maintenance or building engineer (5/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in industrial technology, or 5 in building maintenance or building engineer (5/74).

NV-1710-0033

Boilerman, Class B

Course Number: A-651-0011; A-651-011.

Location: Boilerman School, Philadelphia, PA.

Length: 15–22 weeks (450–660 hours).

Exhibit Dates: 1/54–Present.

Objectives: To train personnel to perform as boiler technicians.

Instruction: Lectures and practical exercises in the operation and maintenance of marine boilers and associated equipment, including operation and maintenance of the 1200-psi steam generating plant; operation and maintenance of the automatic combustion control boards; operation, adjustment, maintenance, and minor repair of hydraulic, pneumatic, and electrical equipment used with automatic combustion control boards; transfer, test, and inventory of fuels and water; and maintenance and repair of boilers, pumps, and associated machinery.

Credit Recommendation: In the vocational certificate category, 10 semester hours in building engineering, building maintenance, or industrial technology (5/74); in the lower-division baccalaureate/associate degree category, 10 semester hours in building engineering, building maintenance, or industrial technology (5/74).

NV-1710-0034

Builder/Heavy Construction
Technician, Class C
(BU"C" Heavy Construction)

Course Number: A-710-0018.

Location: *All Versions:* Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS. *Version 2:* Construction School, Davisville, RI.

Length: *Version 1:* 5 weeks (153 hours). *Version 2:* 7 weeks (208 hours).

Exhibit Dates: *Version 1:* 2/75–Present. *Version 2:* 11/72–1/75.

Objectives: To train enlisted personnel in heavy construction.

Instruction: *Version 1:* Lectures and practical exercises in heavy construction, including tools, piles, and pile-driving methods; waterfront structures; trestle construction; railroad-track maintenance and repair; wood towers; and planning and estimating. *Version 2:* Topics also cover lumbering and sawmill operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in heavy construction (7/76). *Version 2:* In the vocational certificate category, 5 semester hours in heavy construction (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in heavy construction (5/74); in the upper-division baccalaureate category, 2 semester hours in heavy construction (5/74).

NV-1710-0035

Construction Mechanic, Class A1
(CM"A")

Course Number: A-610-0022.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.

Length: 13–14 weeks (391–421 hours).

Exhibit Dates: 8/63–Present.

Objectives: To train enlisted personnel to operate and maintain internal-combustion engines in construction equipment.

Instruction: Lectures and practical exercises in construction equipment internal-combustion engines operation and maintenance, including internal-combustion engine principles, electrical systems, automotive power trains, malfunction diagnosis and adjustment, and safety procedures.

Credit Recommendation: In the vocational certificate category, 9 semester hours in construction equipment motor operation and maintenance (7/76); in the lower-division baccalaureate/associate degree category, 6 semester hours in construction equipment motor operation and maintenance (7/76).

NV-1710-0036

Utilitiesman, Class J (UT"J")
(Utilitiesman, Class B)

Course Number: A-720-0013.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.

Length: 14–15 weeks (420–450 hours).

Exhibit Dates: 11/60–Present.

Objectives: To train enlisted personnel to repair and maintain utility systems.

Instruction: Lectures and practical exercises in utility systems maintenance and repair, including plumbing, sewage disposal, blueprint reading, boilers, refigeration, pumps, compressors, air conditioning, water supply, and water treatment.

Credit Recommendation: In the vocational certificate category, 9 semester hours in utilities maintenance and repair (7/76); in the lower-division baccalaureate/associate degree category, 4 semester hours in utilities maintenance and repair (7/76); in the upper-division baccalaureate category, 2 semester hours in utilities maintenance and repair (7/76).

NV-1710-0037

Equipment Operators Gradework,
Class C
(EO"C" Gradework)

Course Number: A-710-0019.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.

Length: 6 weeks (180 hours).

Exhibit Dates: 10/71–Present.

Objectives: To train noncommissioned officers to supervise earthwork operations according to specifications, mass diagrams, and construction schedules, and to prepare estimates.

Instruction: Lectures and practical exercises in earth supervision, including gradework principles, surveys, maps, mass-diagram preparation, drainage, soil compaction and stabilization, estimating, planning, equipment operation, and field projects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in civil technology (7/76); in the upper-division baccalaureate category, 2 semester hours in civil or construction engineering (7/76).

NV-1710-0038

Builder/Masonry, Class C
(BU"C" Masonry)

Course Number: A-710-0017.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.
Length: 5 weeks (154 hours).
Exhibit Dates: 1/72–Present.
Objectives: To train noncommissioned officers in masonry techniques and in supervision and training of masonry crews.
Instruction: Lectures and practical exercises in masonry and masonry crew training and supervision, including properties and preparation of mortars, brick and block laying and properties, stone and tiles setting, plastering, design and sketch preparation, planning, and manpower and materials estimating.
Credit Recommendation: In the vocational certificate category, 3 semester hours in masonry construction (7/76).

NV-1710-0039

Shipboard Thermal Insulation
(Lagging)

Course Number: F-000-0076; F-000-076.
Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC.
Length: 2–3 weeks (76–90 hours).
Exhibit Dates: 9/71–Present.
Objectives: To train personnel to remove, repair and install shipboard insulation and lagging.
Instruction: Lectures and practical exercises in shipboard insulation and lagging installation, including heat insulation materials; types of insulation and lagging materials used in nuclear and non-nuclear systems; and installation of insulation on piping components, duct, and hulls.
Credit Recommendation: In the vocational certificate category, 2 semester hours in thermal insulation (5/74).

NV-1710-0040

Builder/Concrete, Class C
(BU"C" Concrete)

Course Number: A-730-0020.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.
Length: 7 weeks (216 hours).
Exhibit Dates: 10/71–Present.
Objectives: To train noncommissioned officers to use, mix, and handle concrete.
Instruction: Lectures and practical exercises in concrete use, mixing, and handling, including applied mathematics; plans and specifications; concrete ingredients; design and control of concrete mix; precast concrete; reinforcement, joints and batch plants; placing, finishing and curing concrete; decorative concrete; road and airfield paving; concrete-block and pipe plants; gunite and estimating.
Credit Recommendation: In the vocational certificate category, 5 semester hours in concrete mixing, placing, and use (7/76); in the lower-division baccalaureate/associate degree category, 4 semester hours in concrete mixing, placing, and use (7/76).

NV-1710-0041

Shipfitters, Class A (Pipefitters)

Course Number: Not available.
Location: Training Center, San Diego, CA.
Length: 12 weeks (360 hours).
Exhibit Dates: 5/63–12/68.
Objectives: To train enlisted personnel to be pipefitters.
Instruction: Lectures and practical exercises in pipefitting, including shipfitter responsibilities, mathematics, blueprint reading, shipfitters working drawings and symbols, tools and materials, metallurgy, welding, brazing and soldering, coppersmithing, and pipefitting.
Credit Recommendation: In the vocational certificate category, 8 semester hours in pipefitting (5/74).

NV-1710-0042

Builder, Class J (BU"J")
(Builder, Class B)

Course Number: A-710-0011; A-710-0014.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.
Length: 16–17 weeks (480–511 hours).
Exhibit Dates: 10/70–Present.
Objectives: To train petty officers to supervise builders.
Instruction: Lectures and practical exercises in builder supervision, including mathematics, shop machinery, foremanship, light frame construction, concrete, masonry, plastering, ceramic tile, advance-base and waterfront structures, and project planning.
Credit Recommendation: In the vocational certificate category, 30 semester hours in general contracting (7/76); in the lower-division baccalaureate/associate degree category, 5 semester hours in general contracting (7/76).

NV-1710-0043

Equipment Operators/Crushing and Screening Plant Operations, Class C
(EO"C" Crushing and Screening Operations)

Course Number: A-730-0018.
Location: Construction Training Center, Port Hueneme, CA.
Length: 2 weeks (63 hours).
Exhibit Dates: 1/72–Present.
Objectives: To train enlisted personnel to operate, adjust, and service portable rock-crushing and -screening equipment.
Instruction: Lectures and practical exercises in rock-crushing and -screening equipment operation, adjustment, and servicing, including site selection procedures; assembling and operating the plant; and lubrication, maintenance, and adjustments necessary for production of different sizes of aggregates as required for construction projects.
Credit Recommendation: In the vocational certificate category, 1 semester hour in construction, rock crushing and screening operator (5/74).

NV-1710-0044

Plate Welders, Class C

Course Number: A-701-0025.
Location: Training Center, San Diego, CA.
Length: 10 weeks (300 hours).
Exhibit Dates: 7/70–Present.
Objectives: To train enlisted personnel to weld various structures and hulls.
Instruction: Lectures and practical exercises in welding, including manual metal arc welds on steel alloy plate, metal inert-gas welds on aluminum plate, both types of welds on ferrous and nonferrous metal plate, gas tungsten-arc welding, and use of a variety of electrodes in both overhead and vertical positions.
Credit Recommendation: In the vocational certificate category, 3 semester hours in welding (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in welding (5/74).

NV-1710-0045

Stainless Steel Welding Requalification—Phase I (Enlisted)

Course Number: F-701-015.
Location: Submarine School, Groton, CT.
Length: 3 weeks (90 hours).
Exhibit Dates: 7/67–12/68.
Objectives: To train stainless steel welders to make limited emergency welds on reactor plant systems.
Instruction: Lectures and practical exercises in welding of reactor plant systems, including fillet welds on paddle wheel, carbon steel and specialty pipe welding in horizontal and vertical positions, and identification of welding defects using liquid dye penetrant methods of inspection.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1710-0046

Welding for Nuclear Power Plant Operators, Course V

Course Number: F-701-010; A-701-014; A-701-015.
Location: Submarine School, San Diego, CA; Welding School, Class C, San Diego, CA.
Length: 16 weeks (486 hours).
Exhibit Dates: 1/63–12/70.
Objectives: To provide enlisted personnel with training in arc and oxyacetylene welding.
Instruction: Lectures and practical exercises in welding for use by nuclear power plant operators. Topics include principles of manually shielded metal and arc welding; arc welding of the root pass in welding grooves using "EB" inserts; shielded metal arc welding using W-1 and W-7A electrodes; materials and processes used in nuclear power plant welding; preparation and inspection of welded joints; seal welding joints; pipe welding in fixed position, restricted access in confined spaces; and oxyacetylene torch brazing and cutting.
Credit Recommendation: In the vocational certificate category, 6 semester hours in arc welding (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in arc welding (5/74).

NV-1710-0047

Stainless Steel Welding (Requalification)
(Maintenance of Welding Qualifications)

Course Number: L-701-0014; L-701-014.
Location: Fleet Submarine Training Facility, Pearl Harbor, HI; Fleet Submarine Training Facility, Groton, CT.
Length: 3–4 weeks (84–160 hours).
Exhibit Dates: 12/69–Present.
Objectives: To train enlisted personnel to perform as stainless steel welders.
Instruction: Lectures and practical exercises in stainless-steel welding. Course includes preparation and inspection of welded joints; manually shielded metal arc welding using the W-1 and W-7A coated electrodes; manual inert-gas tungsten-arc welding of the root pass in welding grooves using a consumable insert; and a qualifications test.

Credit Recommendation: In the vocational certificate category, 2 semester hours in welding (5/74).

NV-1710-0048

STAINLESS STEEL WELDING REQUALIFICATION—PHASE III (ENLISTED)

Course Number: F-701-016.
Location: Submarine School, Groton, CT.
Length: 3 weeks (90 hours).
Exhibit Dates: 1/67-12/68.
Objectives: To requalify enlisted personnel who were once qualified as stainless steel welders to work in a limited capacity on welds in a reactor plant system.
Instruction: Lectures and practical exercises in stainless steel welding. Topics include fillet welds on paddle wheel and curved surfaces; welding using the manual arc process in horizontal, vertical, and restricted fixed positions; welding, inspecting, and grinding carbon steel rockets, sleeves, and tees; and identifying welding defects using liquid dye penetrant methods of inspection.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1710-0049

PRESSURE HULL WELDERS

Course Number: A-701-0029.
Location: Service School Command, San Diego, CA.
Length: 2 weeks (60 hours).
Exhibit Dates: 11/70-Present.
Objectives: To train enlisted personnel to perform manual metal arc welds on steel alloy or austenitic steel plate.
Instruction: Lectures and practical exercises in the metal arc welding of steel alloy and austenitic steel hull plate in fixed-overhead and vertical positions, and the general properties and characteristics of hull plate.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1710-0050

PIPE WELDERS

Course Number: A-701-0026.
Location: Welding School, Class C, San Diego, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 7/70-Present.
Objectives: To train enlisted personnel to perform manual steel arc welds on carbon steel or copper-nickle pipe.
Instruction: Lectures and practical exercises in manual metal arc welds on carbon steel pipe in fixed-restricted vertical and horizontal positions and in manual metal arc welds on copper-nickel pipe using copper-nickel electrodes in fixed-restricted vertical and horizontal positions.
Credit Recommendation: In the vocational certificate category, 1 semester hour in pipe welding (5/74).

NV-1710-0051

HIGH PRESSURE PIPE WELDERS

Course Number: A-701-0027.
Location: Welding School, Class C, San Diego, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 8/70-Present.
Objectives: To train enlisted personnel to perform manual metal arc welds on carbon-molybdenum high-pressure piping systems.
Instruction: Lectures and practical exercises in high-pressure pipe welding. Course includes manual metal arc welding of steel pipe with carbon-molybdenum electrodes; manual metal arc welding of steel pipe with chrome-molybdenum electrodes; and gas tungsten-arc welding of carbon steel pipe with root inserts.
Credit Recommendation: In the vocational certificate category, 1 semester hour in pipe welding (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in pipe welding (5/74).

NV-1710-0052

FUEL GAS WELDERS

Course Number: A-701-0024.
Location: Welding Class C School, San Diego, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 6/70-Present.
Objectives: To train enlisted personnel to perform silver brazing of ferrous and nonferrous piping systems and structual braze welding and fuel-gas welding in ferrous and nonferrous metals.
Instruction: Lectures and practical exercises in specialty skills developed in fuel-gas welding of mild steel in the flat position; fuel gas welding and brazing with brass; hard-surfacing mild steel by the fuel-gas process; silver brazing by the fuel-gas process using bronze fittings and couplings with copper, copper-nickel, brass, and steel pipe in fixed-restricted horizontal and vertical positions.
Credit Recommendation: In the vocational certificate category, 1 semester hour in pipe welding (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in pipe welding (5/74).

NV-1710-0053

STEELWORKER/WELDING CERTIFICATION, CLASS C

(SW"C" Welding Certification)

Course Number: A-701-0038.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.
Length: 4 weeks (120 hours).
Exhibit Dates: 11/62-Present.
Objectives: To provide enlisted personnel with training in arc and gas welding.
Instruction: Lectures and practical exercises in welding procedures. Course includes welding safety policies and attitudes; flat and vertical welding positions; theories and techniques of welding fixed-position pipe; oxyacetylene welding theory and techniques in vertical and overhead positions; theory and techniques of inert gas-shielded metal arc welding in vertical and overhead positions with aluminum.
Credit Recommendation: In the vocational certificate category, 2 semester hours in welding (7/76); in the lower-division baccalaureate/associate degree category, 1 semester hour in welding (7/76).

NV-1710-0054

INTERMEDIATE WELDING

(Welding Course I)

Course Number: Not available.
Location: Welding School, Class C, San Diego, CA.
Length: 12 weeks (360-390 hours).
Exhibit Dates: 11/63-12/68.
Objectives: To train enlisted personnel to weld and braze ship structures and piping.
Instruction: Lectures and practical exercises in welding. Course includes introduction to oxyacetylene welding; oxyacetylene welding of mild steel; brazing; hard surfacing; tungsten inert-gas arc welding (T.I.G.); shielded inert-gas metal-arc welding of aluminum (M.I.G.); introduction to shielded metal-arc welding; arc welding with mild steel electrode, with MIL-7018 low-hydrogen electrodes, and with MIL-310 15/16 chromium-nickel steel electrodes; and hard-surfacing mild steel by the metal-arc process.
Credit Recommendation: In the vocational certificate category, 6 semester hours in welding (5/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in welding (5/74).

NV-1710-0055

ADVANCED WELDING

(Welding Course II)

Course Number: Not available.
Location: Welding School, Class C, San Diego, CA.
Length: 8 weeks (240 hours).
Exhibit Dates: 11/63-12/68.
Objectives: To train enlisted personnel as welders.
Instruction: Lectures and practical exercises in advanced welding techniques. Course includes welding steel pipe with carbon-molybdenum electrodes; welding steel pipe with chrome-molybdenum electrodes; introduction to hull welding; welding high-tensile steel hull plate with low-hydrogen electrodes; welding heavy hull plate with low-hydrogen electrodes; air-arc gouging; welding austenite-chromium electrodes; welding copper-nickel alloy (70-30) with copper-nickel electrodes; and shielded inert-gas metal-arc welding of aluminum (M.I.G.).
Credit Recommendation: In the vocational certificate category, 2 semester hours in welding/metallurgy (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in welding/metallurgy (5/74); in the upper-division baccalaureate category, 1 semester hour in welding/metallurgy (5/74).

NV-1710-0056

AUTOMATED PROPULSION SYSTEM OPERATOR, CLASS C

Course Number: A-651-0036.
Location: Service School Command, San Diego, CA.
Length: 6 weeks (180 hours).
Exhibit Dates: 1/71-Present.
Objectives: To train enlisted personnel in automated propulsion system controls and in engineering plant concepts, with particular emphasis on burner management, throttle control, and plant surveillance.
Instruction: Lectures and practical exercises in automated propulsion system controls and in engineering plant concepts. Course includes analog systems, pneumatic analog system functions, digital systems, Bailey 760 system, input and output control signals and devices, practical use of schematics and flow charts, central operations system design, engine room console, bridge console, and plant operations.
Credit Recommendation: In the vocational certificate category, 3 semester hours as a technical elective in mechanical maintenance (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as a technical elective in mechanical maintenance (7/74).

NV-1710-0057

Propulsion Shaft Components

Course Number: A-651-0061; F-000-040; L-661-020.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Fleet Submarine Training Facility, Pearl Harbor, HI; Naval Submarine School, Groton, CT.

Length: 2–3 weeks (60–105 hours).

Exhibit Dates: 11/66–Present.

Objectives: To train enlisted personnel to maintain the propulsion shaft components found on nuclear-powered submarines.

Instruction: Lectures and practical exercises in the maintenance of propulsion shaft components. Course includes principles of operation, theory of construction, and practical training in the repair of propulsion shaft components.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in mechanical or industrial programs (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in mechanical or industrial programs (7/74).

NV-1710-0058

Officer Damage Control

Course Number: Not available.

Location: Damage Control Training Center, Philadelphia, PA; Naval Schools Command, Treasure Island, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 5/65–12/68.

Objectives: To train enlisted personnel to perform as damage control assistants.

Instruction: Lectures and practical exercises in the duties and skills necessary to perform as a damage control assistant. Course includes hull design and construction, emergency communication systems, damage identification and control, and repair procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1710-0059

Engineer Officer (Amphibious Ship)

Course Number: G-4H-6190.

Location: Amphibious School, Norfolk, VA.

Length: 4–6 weeks (160–240 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train officers as amphibious ship engineering officers.

Instruction: Lectures and practical exercises in the duties of amphibious ship engineering officers, including boiler maintenance, steam and diesel propulsion, ship engineering organization, auxiliary machinery, electrical power distribution and equipment, and basic electrical principles and applications to shipboard equipment.

Credit Recommendation: Credit is not recommended because of the technical nature of the course (7/74).

NV-1710-0060

Machinist's Mate Enlisted Maintenance

Course Number: A-651-016.

Location: Destroyer School, Newport, RI.

Length: 4 weeks (120 hours).

Exhibit Dates: 12/69–Present.

Objectives: To train enlisted personnel to perform as machinist's mates.

Instruction: Lectures and practical exercises in the duties and skills necessary to perform as machinist's mates. Course includes hand tools, precision tools, steam theory and cycle, main feed booster pump and system, main pump and system, and boiler construction and operation.

Credit Recommendation: Insufficient data for evaluation (7/74).

NV-1710-0061

Marine Aircraft Launch and Recovery Equipment, Class A

Course Number: C-680-2015.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 8 weeks (320 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel to operate and maintain aircraft launching and recovery equipment.

Instruction: Lectures and practical exercises in aircraft launching and recovery equipment operation and maintenance, including survival and emergency equipment, heavy equipment, and arresting gear.

Credit Recommendation: In the vocational certificate category, 6 semester hours in heavy equipment technology (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in heavy equipment technology (7/74).

NV-1710-0062

Equipment Operators/Asphalt Paving and Plant Operation, Class C

(EO"C" Asphalt)

Course Number: A-730-0017.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.

Length: 7 weeks (210 hours).

Exhibit Dates: 2/72–Present.

Objectives: To train personnel in the operating techniques and supervisory skills required for asphalt paving and plant operation.

Instruction: Lectures and practical exercises in asphalt paving and plant operation, including plant components, plant disassembly, plant erection, asphalt construction materials, designing hot asphalt mix, production equipment, placement equipment, protective coatings, producing and laying asphalt, and pavement failure and repair.

Credit Recommendation: In the vocational certificate category, 4 semester hours in asphalt paving construction (7/76); in the lower-division baccalaureate/associate degree category, 1 semester hour in asphalt paving construction (7/76).

NV-1710-0063

Builders, Class A (BU"A")

Course Number: A-710-0010.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction Training Center, Davisville, RI.

Length: 9–12 weeks (280–370 hours).

Exhibit Dates: 3/60–Present.

Objectives: To train personnel as builders.

Instruction: Lectures and practical exercises in the duties of builders, including hand tools and portable machinery, construction materials, construction rigging, blueprint reading, woodworking and mill work, construction carpentry, concrete, concrete finishing and masonry construction, roofing, painting, glazing and composition tile, and field and waterfront structures.

Credit Recommendation: In the vocational certificate category, 8 semester hours in construction technology (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in construction technology (7/76).

NV-1710-0064

Equipment Operators/Blasting and Quarry Operations, Class C

(EO"C" Blasting and Quarry Operations)

Course Number: A-730-0019; A-710-012.

Location: Construction Training Center, Port Hueneme, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 6/65–Present.

Objectives: To train enlisted personnel to supervise quarry operations.

Instruction: Lectures and practical exercises in drilling, placing charges, detonation procedures, construction blasting, quarry layout, development and operation of a quarry, and rock-crushing plant operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in quarry foremanship (7/74).

NV-1710-0065

Construction Mechanic, Class J (CM"J")

(Construction Mechanic, Class B)

Course Number: A-610-0011; A-610-0015.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.

Length: 14–15 weeks (420–450 hours).

Exhibit Dates: 2/65–Present.

Objectives: To train enlisted personnel in the maintenance, repair, and overhaul of automotive materials and parts.

Instruction: Lectures and practical exercises in the repair and maintenance of construction vehicles and parts, including foremanship training, basic mathematics, instruments, internal-combustion engines, electrical systems, adjustment and troubleshooting procedures; Caterpillar, International, General Motors, and Cummins engines; multifuel engines; construction equipment power trains and chassis units; and automotive chassis and power trains.

Credit Recommendation: In the vocational certificate category, 9 semester hours in construction equipment repair foremanship (7/76).

NV-1710-0066

1. Marine Gas Turbine Basic, Class C1
2. Enginemen, Class C, Marine Gas Turbine Basic

Course Number: A-652-0027.

Location: Propulsion Engineering School, Great Lakes, IL.

Length: *Version 1:* 6 weeks (213 hours). *Version 2:* 4 weeks (120 hours).

Exhibit Dates: *Version 1:* 8/77–Present. *Version 2:* 8/73–7/77.

Objectives: To provide the required technical background and skills for entry into specific gas turbine system courses.

Instruction: Lectures and practical exercises in the theory, operation, and characteristics of gas turbine engines, assemblies, sub-assemblies, and component parts.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 4 semester hours in gas turbine engines (9/77). *Version 2:* In the vocational certificate category, 3 semester hours in gas turbine engines (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in gas turbine engines (6/75).

NV-1710-0067

SOLAR T-10205-11A SATURN ENGINE, CLASS C1

(Enginemen, Class C, Solar T-10205-11A Saturn Engine)

Course Number: A-652-0068.

Location: Propulsion Engineering School, Great Lakes, IL.

Length: 3 weeks (85 hours).

Exhibit Dates: 8/73–Present.

Objectives: To upgrade the knowledge and skills of petty officers with Gas Turbine System Technician ratings for more effective performance of duties.

Instruction: Lectures and practical exercises in operating, testing, adjusting, and diagnosing and repairing malfunctions in the Solar Saturn gas turbine engine.

Credit Recommendation: Credit is not recommended because of the refresher nature of the course (9/77).

NV-1710-0068

STEELWORKER, MAINTENANCE WELDING TECHNIQUES, CLASS C

(SW"C" Maintenance Welding)

Course Number: A-701-0037.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.

Length: 4–5 weeks (120–150 hours).

Exhibit Dates: 7/73–Present.

Objectives: To provide instruction in the repair of machinery by welding.

Instruction: Lectures and practical exercises in welding consumables; applied welding, metallurgy, and general and high strength brazing of steel; heat treatment of metals and silver brazing of steel; welding processes and silver brazing of stainless steel; welding consumable selection and silver brazing of brass, stress analysis, and cast iron and aluminum welding; welding processes and torch soldering; techniques of arc welding in maintenance; and wearfacing in maintenance welding and gas tungsten arc in maintenance welding.

Credit Recommendation: In the vocational certificate category, 3 semester hours in advanced welding (7/76); in the lower-division baccalaureate/associate degree category, 2 semester hours in advanced welding (7/76).

NV-1710-0069

NUCLEAR POWER PLANT COMPONENTS WELDER, CLASS C

Course Number: A-701-0028.

Location: Welding School, San Diego, CA.

Length: 14 weeks (447 hours).

Exhibit Dates: 10/73–Present.

Objectives: To train personnel to weld reactor coolant and associated systems in a nuclear power plant.

Instruction: Topics include introduction to nuclear power plant components welding, welding consumable material, pipe butt and socket type joints, and upper seal weld of a beveled canopy.

Credit Recommendation: In the vocational certificate category, 6 semester hours in advanced or specialized welding (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced or specialized welding (6/75).

NV-1710-0070

GENERAL PUMP MAINTENANCE

Course Number: F-000-0045; F-000-045.

Location: Submarine School, Groton, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2–3 weeks (60–105 hours).

Exhibit Dates: 9/66–Present.

Objectives: To train personnel to recognize, operate, maintain, and repair various types of liquid pumps and their components.

Instruction: Lectures and practical exercises in pump classification and application and shaft seals, couplings, valves, and other pump components and their maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in construction equipment (pump maintenance) (5/74).

NV-1710-0071

AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT (C-7/11 CATAPULT), CLASS C

Course Number: None.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 9 weeks (352 hours).

Exhibit Dates: 10/70–Present.

Objectives: To train selected personnel in the operation, inspection, and maintenance of C-7/11 catapults and related equipment.

Instruction: Lectures and practical exercises in the basic fundamentals, description, operation, function, and location of the C-7/11 catapults; Mk-7 arresting gear barricade components, and systems to include the steam system, mechanical system, hydraulic system, control system familiarization, operation, replacement, servicing, and repair and inspection.

Credit Recommendation: In the vocational certificate category, 14 semester hours in steam systems and hydromechanical systems (6/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in steam systems and hydromechanical systems (6/74).

NV-1710-0072

STEAM PLANT AUTOMATIC CONTROLS MAINTENANCE (GENERAL REGULATOR)

Course Number: A-651-0039; A-651-0040.

Location: Development and Training Center, San Diego, CA; Boiler Technician School, Philadelphia, PA.

Length: 6 weeks (210 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train petty officers to perform their duties and to supervise personnel in steam plant operation.

Instruction: Classroom and practical instruction in the operation of high pressure steam systems using General Regulator Automatic Control systems, including safety controls and feed controls.

Credit Recommendation: In the vocational certificate category, 3 semester hours in building maintenance and engineering (6/75).

NV-1710-0073

STEAM PLANT AUTOMATIC CONTROLS MAINTENANCE (HAGAN)

Course Number: A-651-0041; A-651-0042.

Location: Boiler Technician School, Philadelphia, PA; Development and Training Center, San Diego, CA.

Length: 5 weeks (150 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train petty officers to perform their duties and to supervise in steam plant operation.

Instruction: Instruction includes the operation of high pressure steam systems using the Hagan Automatic Control system, including safety controls and feed controls.

Credit Recommendation: In the vocational certificate category, 3 semester hours in building maintenance and engineering (6/75).

NV-1710-0074

STEAM PLANT AUTOMATIC CONTROLS MAINTENANCE (BAILEY METER)

Course Number: A-651-0043; A-651-0044.

Location: Boiler Technician School, Philadelphia, PA; Development and Training Center, San Diego, CA.

Length: 6 weeks (180 hours).

Exhibit Dates: 12/72–Present.

Objectives: To train petty officers to perform their duties and to supervise personnel in steam plant operation.

Instruction: Instruction includes the operation of high pressure steam systems using the Bailey Meter Automatic Control system, including safety controls and feed controls.

Credit Recommendation: In the vocational certificate category, 3 semester hours in building maintenance and engineering (6/75).

NV-1710-0075

1200 PSI STEAM GENERATING PLANT OPERATOR

Course Number: A-651-0038.

Location: Boiler Technician School, Philadelphia, PA.

Length: 3 weeks (106 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train boiler technicians in the operation of the 1200 psi boilers and associated auxiliary machinery.

Instruction: Classroom and practical instruction in the principles of high pressure steam systems including start-up, operation, and control of steam plants and steam plant accessories.

Credit Recommendation: In the vocational certificate category, 2 semester hours in plant operation and maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in plant operation and maintenance (6/75).

NV-1712-0001

WAUKESHA DIESEL ENGINE

Course Number: A-652-0037; J-651-0473.

Location: Fleet and Mine Warfare Training Center, Charleston, SC.

Length: 5 weeks (145 hours).

Exhibit Dates: 7/73–Present.

Objectives: To train enginemen to operate and maintain specific diesel engines and distilling plant and engineering plant systems.

Instruction: Lectures and practical exercises in the operation and maintenance of specific diesel engines and distilling plant and engineering plant systems, including diesel engine construction, pump, and components; diesel engine systems, disassembly and reassembly procedure, alignment and troubleshooting; theory of distillation; principles, systems, and components of equipment; troubleshooting techniques; and engineering plant system, clutches and couplings, reduction gears, propellers and shafting, engine alignment, and main propulsion system operating procedure.

Credit Recommendation: In the vocational certificate category, 2 semester hours in diesel engines, 3 as an elective in mechanical technology (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engines, 3 as an elective in mechanical technology (4/74); in the upper-division baccalaureate category, 2 semester hours in diesel engines (4/74).

NV-1712-0002

SSN/SSBN DIESEL ENGINE (FAIRBANKS-MORSE) MAINTENANCE

Course Number: A-652-0046.
Location: Submarine School, Groton, CT.
Length: 5 weeks (150 hours).
Exhibit Dates: 12/71–Present.
Objectives: To train enlisted personnel to maintain and repair the Fairbanks-Morse diesel engine.
Instruction: Lectures and practical exercises in Fairbanks-Morse diesel engine maintenance and repair, including diesel engine principles, components familiarization and maintenance procedures, engine fluid systems, scavenging blower, camshaft drive, and bearings, tappet assemblies, fuel injection, engine timing, governor, engine control linkage, snorkel systems, and troubleshooting and corrective maintenance procedures.
Credit Recommendation: In the vocational certificate category, 5 semester hours in diesel engines (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in diesel engines (4/74); in the upper-division baccalaureate category, 5 semester hours in diesel engines (4/74).

NV-1712-0003

FAIRBANKS MORSE 38F5 1/4 DIESEL ENGINE

Course Number: F-652-020.
Location: Submarine School, Groton, CT.
Length: 2 weeks (60 hours).
Exhibit Dates: 4/70–Present.
Objectives: To train enlisted personnel to maintain and repair the Fairbanks-Morse diesel engine.
Instruction: Lectures and practical exercises in Fairbanks-Morse diesel engine maintenance and repair, including diesel engine characteristics, component parts, fresh and salt water systems, lube oil system, vertical drive assembly, blower, starting air system, camshaft, timing and pump drive, fuel system, governor, fuel injection system, and troubleshooting and repair procedures.
Credit Recommendation: In the vocational certificate category, 2 semester hours in diesel engines (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engines (4/74); in the upper-division baccalaureate category, 2 semester hours in diesel engines (4/74).

NV-1712-0004

MINE WARFARE WAUKESHA DIESEL ENGINEMAN, CLASS C

Course Number: Not available.
Location: Mine Warfare Class C School, Charleston, SC.
Length: 3 weeks (120 hours).
Exhibit Dates: 1/69–Present.
Objectives: To train enlisted personnel to maintain the Waukesha diesel engine.
Instruction: Lectures and practical exercises in Waukesha diesel engine maintenance, including engine system introduction; components familiarization; disassembly and reassembly procedures; turbocharger, water pumps, cooler, and fuel injector maintenance; and alignment, break-in, and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 1 semester hour in diesel engines (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in diesel engines (4/74); in the upper-division baccalaureate category, 1 semester hour in diesel engines (4/74).

NV-1712-0005

GM-16-278A DIESEL ENGINE, CLASS C1
(Enginemen, Class C, General Motors 16-278A Diesel Engine)

Course Number: A-652-0021.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: 3 weeks (90–100 hours).
Exhibit Dates: 5/73–Present.
Objectives: To train petty officers to perform the maintenance and repair of the GM 16-278A diesel engine.
Instruction: Lectures and practical exercises in GM 16-278A diesel engine maintenance and repair, including component parts operation, gear trains, engine timing, air intake and exhaust system, centrifugal pumps and cooling systems, lubrication system, governor, speed control device, air starting and operating procedures, and troubleshooting.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engines (9/77).

NV-1712-0006

GM-12-567E/645E DIESEL ENGINE, CLASS C1
(Enginemen, Class C, General Motors 12-567E Diesel Engine)

Course Number: A-652-0022.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: 3 weeks (90–92 hours).
Exhibit Dates: 6/73–Present.
Objectives: To train petty officers to supervise the maintenance and repair of the GM 12-567E diesel engine.
Instruction: Lectures and practical exercises in GM 12-567E diesel engine maintenance and repair, including component parts operation, engine timing, blowers, air intake and exhaust systems, centrifugal pumps and cooling systems, lubrication system, fuel system, governor, starting system operation, reversing reduction gear and clutch, maintenance procedures, starting and operating procedures, and troubleshooting.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engines (9/77).

NV-1712-0007

GM 268A DIESEL ENGINE, CLASS C1
(Enginemen, Class C, General Motors 8-268A Diesel Engine)

Course Number: A-652-0020.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: 3 weeks (95–120 hours).
Exhibit Dates: 5/73–Present.
Objectives: To train petty officers to supervise the maintenance and repair of the GM 8-268A diesel engine.
Instruction: Lectures and practical exercises in GM 8-268A diesel engine maintenance and repair, including component parts operation, gear trains, engine timing, air intake and exhaust system, centrifugal pumps and cooling system, lubrication system, fuel system, governor, maintenance procedures, starting and operating procedures, and troubleshooting.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine technology, automotive or heavy equipment technology (9/77).

NV-1712-0008

ENGINEERING OFFICER
(Engineer Officer)

Course Number: K-4H-2008; A-4H-0022.
Location: Fleet Training Center, San Diego, CA.
Length: 12–13 weeks (360–417 hours).
Exhibit Dates: 9/70–Present.
Objectives: To train junior officers to perform as engineering officers in diesel- and steam-powered ships.
Instruction: Lectures and practical exercises in the operation of diesel- and steam-powered ships, including engineering department management, shipboard fire fighting, damage control; nuclear, biological, and chemical warfare defense; shipboard electrical systems; diesel propulsion principles; specific boiler operations; auxiliary machinery and steam propulsion machinery; officer administration; fuel oil system and cooling system; gauges and calibration; and operation of vertical, forced-draft blowers.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1712-0009

ASSAULT BOAT ENGINEER

Course Number: G-652-6160.
Location: Amphibious School, Little Creek, VA.
Length: 3 weeks (105 hours).
Exhibit Dates: 1/67–Present.
Objectives: To train enlisted personnel in diesel engine and assault boat operation and maintenance.
Instruction: Lectures on diesel engine operation, component nomenclature, lubricating system, cooling system, fuel system, blowers, governors, fuel injection, hydraulic reverse gear, V drive, transmission, electrical systems, ramp winch, and overhaul and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in heavy equipment or diesel technology (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in heavy equipment or diesel technology (4/74).

NV-1712-0010

AMERICAN LOCOMOTIVE (ALCO 251C) DIESEL ENGINE, CLASS C1
(Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine)

Course Number: A-652-0056.
Location: Propulsion Engineering School, Great Lakes, IL.
Length: 3 weeks (99–120 hours).
Exhibit Dates: 4/73–Present.
Objectives: To train petty officers to supervise the operation, maintenance, and repair of diesel engines.
Instruction: Lectures in diesel engine introduction; construction; turbocharger, intake, and exhaust systems; starting air systems; lubrication, fuel, and cooling systems; governors and instrumentation; PMS re-

quirements; and engine operation and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel technology (9/77).

NV-1712-0011

Engineman, Class A1

Course Number: A-652-0018.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* Self-paced 5-6 weeks (236 hours). *Version 2:* 15 weeks (455 hours). *Version 3:* 12 weeks (373 hours).

Exhibit Dates: *Version 1:* 1/74-Present. *Version 2:* 2/68-12/73. *Version 3:* 7/63-1/68.

Objectives: To train enlisted personnel to operate diesel-powered ship engines.

Instruction: *All Versions:* Lectures and practical exercises in engine introduction; portable pumps; internal-combustion engine; lubrication, cooling, fuel, electrical, and transmission systems; hydraulic steering; diesel engines; auxiliary boilers; refrigeration; distilling plants; and oil purification operation. *Version 1:* Instruction is self-paced. *Version 2:* Instruction includes maintenance and materiel management. *Version 3:* Instruction includes mathematics, blueprint reading, tools and materials familiarization, temperature and measuring instruments, valves and pumps, gas turbine engines, damage control and fire fighting.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours in diesel mechanics and 2 as a technical elective in automotive and mechanical programs (9/77). *Version 2:* In the lower-division baccalaureate/associate degree category, 5 semester hours in diesel mechanics, and credit in automotive technology on the basis of institutional evaluation (4/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in diesel mechanics, and credit in automotive technology on the basis of institutional evaluation (4/74).

NV-1712-0012

Mine Warfare Packard Diesel Engineman (Class C)

Course Number: A-652-039.

Location: Naval Schools, Charleston, SC.

Length: 3 weeks (90 hours).

Exhibit Dates: 9/70-Present.

Objectives: To train enlisted personnel who have completed a basic engineman course to operate, maintain, diagnose, and overhaul diesel engines.

Instruction: Lectures and practical exercises in diesel engine operation, maintenance, diagnosis, and overhaul, including turbosuperchargers, instruments, and controls; operating and construction data; cooling, lubrication, air intake, exhaust and fuel systems; engine maintenance and overhaul procedures; and engine timing, troubleshooting, testing, and starting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in diesel technology or heavy equipment (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in diesel technology or heavy equipment (4/74).

NV-1712-0013

Depot Level Boat Repairman (Engineman)

Course Number: H-652-0060.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train enginemen to operate, maintain, troubleshoot, and repair typical diesel marine engines.

Instruction: Lectures and practical exercises in the operation, maintenance, troubleshooting, and repair of typical diesel marine engines, including tune-up fundamentals, and servicing and operation principles for camshafts, gear train and flywheel housings, pistons, rods and cylinder heads, air intake and exhaust systems, fuel oil systems, lubricating systems, and cooling systems and governors.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in automotive or diesel technology (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in automotive or diesel technology (4/74).

NV-1712-0014

FM38D8 1/8 DR Diesel Engine, Class C1

(Engineman Fairbanks-Morse 38D 8 1/8 DR Diesel Engine)

Course Number: A-652-0023.

Location: Propulsion Engineering School, Great Lakes, IL.

Length: 3 weeks (95-120 hours).

Exhibit Dates: 6/73-Present.

Objectives: To train petty officers to supervise diesel engine operation, maintenance, diagnosis, and repair.

Instruction: Lectures and practical exercises in diesel engine operation, maintenance, diagnosis, and repair, including engine construction, control and vertical drive, timing, lubrication system, fuel system, cooling system, air starting system, blowers, intake and exhaust system, governor, and planned maintenance and troubleshooting procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel, automotive or heavy equipment technology (9/77).

NV-1712-0015

Basic Engineman, Class C1

(Enginemen Class C Basic Enginemen)

Course Number: A-652-0019.

Location: Propulsion Engineering School, Great Lakes, IL.

Length: 3 weeks (99-120 hours).

Exhibit Dates: 5/73-Present.

Objectives: To train enlisted personnel to operate diesel engines and to supervise engine room operations.

Instruction: Lectures and practical exercises in the operation of diesel engines and engine rooms, including fundamentals of diesel engines, instrumentation, diesel engine systems analysis, administration of engineering systems, and construction and inspection of diesel engines and ancillary equipment, shafts, and gearing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine technology (9/77).

NV-1712-0016

Assault Boat Engineer

Course Number: H-652-5317.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 3 weeks (105-113 hours).

Exhibit Dates: 7/66-Present.

Objectives: To train personnel as assault boat engineers.

Instruction: Lectures and practical exercises in model 64HN9 and 6121-T diesel engines installed in landing craft, and in the operation and maintenance of ramp and steering machinery installed in LCVP's and LCM's, including basic diesel engine construction and operation, General Motors 64HN9 diesel engine familiarization, cylinder block and cylinder head overhaul, engine pump overhaul, engine disassembly and assembly, engine timing and adjustments, transmission, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in diesel engines (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in automotive technology (5/74).

NV-1712-0017

Enginemen, Diesel Engine, Class C

Course Number: Not available.

Location: Engineman Class C School, Great Lakes, IL.

Length: 6 weeks (185-190 hours).

Exhibit Dates: 7/63-12/68.

Objectives: To train enlisted personnel to maintain and repair fleet diesel engines.

Instruction: Lectures and practical exercises in the maintenance, repair, and operation of fleet diesel engines. Topics include diesel engine construction and operation, fuel systems, and individual units of instruction on specific power plants.

Credit Recommendation: In the vocational certificate category, 6 semester hours in diesel engine laboratory and lecture (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in diesel engine laboratory and lecture (7/74); in the upper-division baccalaureate category, 5 semester hours in diesel engine laboratory and lecture (7/74).

NV-1712-0018

Patrol Gunboat/PG/Engineering Systems Operator and Maintenance

Course Number: A-652-0032.

Location: Development and Training Center, San Diego, CA.

Length: 10 weeks (343 hours).

Exhibit Dates: 7/72-Present.

Objectives: To provide personnel with the necessary skills and related knowledge to enable them to operate and perform shipboard maintenance on patrol gunboat engineering systems.

Instruction: Lectures and practical exercises in the principles of operation, maintenance, and repair of gas turbines, diesel engines and generators, reduction gears, controllable pitch propellers, air control systems, engineering subsystems, generators, and switchboards.

Credit Recommendation: In the vocational certificate category, 3 semester hours in boat mechanics (5/74).

NV-1712-0019

Detroit Diesel V71 Series Engine Maintenance, Class C1

Course Number: A-652-0080.

Location: Service School Command, Great Lakes, IL.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/77-Present.

Objectives: To train selected petty officers to supervise performance of scheduled and unscheduled maintenance, diagnosis and repair of the Detroit Diesel V71 engine.

Instruction: Areas of instruction include engine construction, fuel systems, lubrication, cooling, governors, tune up and maintenance procedures, starting, operating procedures and troubleshooting.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in diesel engine operation, repair and maintenance (9/77).

NV-1712-0020

Diesel Engine Technician, Class C1

Course Number: A-652-0035; A-652-0020; A-652-0021; A-652-0022.

Location: Service School Command, Great Lakes, IL.

Length: 9 weeks (300 hours).

Exhibit Dates: 5/73–Present.

Objectives: To train selected petty officers to supervise the maintenance and repair of diesel engines.

Instruction: This course is a combination of A-652-0020, GM 268A Diesel Engine, Class C1 (NV-1712-0007), A-652-0021, GM-16-278A Diesel Engine, Class C1 (NV-1712-0005), and A-652-0022, GM-12-567E/645E Diesel Engine, Class C1 (NV-1712-0006). Topics cover the maintenance and repair of the specified diesel engines.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in diesel engine technology (9/77).

NV-1713-0001

Engineering Aids, Class B
(EA"J")

Course Number: A-412-0015.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS.

Length: 15–16 weeks (450–480 hours).

Exhibit Dates: 5/64–Present.

Objectives: To train petty officers to be civil technicians.

Instruction: Lectures and practical exercises in foremanship, mathematics, construction, drafting, construction surveys, triangulation and field astronomy, map projections, planning and estimating, advance-base planning, soils testing, bituminous materials and concrete testing.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in construction surveying and drafting (5/74); in the upper-division baccalaureate category, 6 semester hours in construction surveying, 3 in drafting (12/68).

NV-1713-0002

Illustrator Draftsman, Class A

Course Number: Not available.

Location: Construction School, Port Hueneme, CA.

Length: 15 weeks (450 hours).

Exhibit Dates: 5/63–12/68.

Objectives: To train enlisted personnel to be draftsmen.

Instruction: Lectures and practical exercises in mathematics, basic drafting, machine drafting, ship and aircraft structural drafting, electrical and electronic drafting, media, visual aids, methods of reproduction, and screen processes reproduction.

Credit Recommendation: In the vocational certificate category, 6 semester hours in basic drafting (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic drafting (5/74); in the upper-division baccalaureate category, 3 semester hours in basic drafting (12/68).

NV-1714-0001

EC-130Q Electrical Systems and
Circuits Organizational
Maintenance

Course Number: None.

Location: Naval Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train maintenance personnel to maintain, service, and functionally test the EC-130Q electrical systems and circuits at the organizational maintenance level.

Instruction: Electrical power supplies, circuits, and miscellaneous electrical systems; utility and fuel systems; power plants and propeller systems as they pertain specifically to the EC-130Q.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1714-0002

Electrician's Mate Enlisted
Maintenance

Course Number: A-662-018.

Location: Naval Destroyer School, Newport, RI.

Length: 4 weeks (117 hours).

Exhibit Dates: 12/69–Present.

Objectives: To provide a knowledge of basic electrical theories and systems and to inculcate necessary basic repair and maintenance skills.

Instruction: Basic electrical theory and application; equipment familiarization.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1714-0003

Electrician's Mate Maintenance,
Class P

Course Number: A-651-0025.

Location: Naval Development and Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/72–Present.

Objectives: To provide electrician-supervisors with practical training in maintenance and repair procedure of ship's electrical installations.

Instruction: Engineering department administration; electrical systems operations and safety precaution; disassembly, adjustment, and reassembly of electrical rotating equipment, measuring instruments, motors, motor controllers, voltage regulators, magnetic amplifiers, static exciters, gyros, and small-boat electrical systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical technology (11/73).

NV-1714-0005

Electrical Distribution and Control

Course Number: F-662-011.

Location: Naval Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train students to inspect, maintain, adjust, and repair electrical distribution and control equipment installed in nuclear submarines.

Instruction: Electrical switchboards; air, motor-operated, and arc-quenching circuit breakers; coolant pump control circuitry; AC controllers; DC starters.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1714-0006

Aviation Ordnanceman (Utility),
Class A

Course Number: None.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 3/57–12/68.

Objectives: To train enlisted personnel to inspect, test, and maintain aviation ordnance.

Instruction: Lectures and practical exercises in basic electricity, aircraft munitions, bomb- and torpedo-handling equipment, weapons, and munitions handling.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (3/74).

NV-1714-0007

Aviation Ordnanceman (Turret),
Class A

Course Number: None.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 3/57–12/68.

Objectives: To train enlisted personnel to inspect, test, and maintain aviation ordnance and to perform maintenance on aircraft turrets.

Instruction: Lectures and practical exercises in basic electricity, aircraft munitions, bomb- and torpedo-handling equipment, weapons, munitions handling, and aircraft turrets.

Credit Recommendation: In the vocational certificate category, credit in electricity on the basis of institutional evaluation (3/74).

NV-1714-0008

Construction Electrician, Class A
(CE"A")

Course Number: *Version 1:* A-721-0018. *Version 2:* A-721-0018; A-721-018; A-721-0021; A-721-021. *Version 3:* None.

Location: *All Versions:* Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS. *Version 2:* Construction School, Davisville, RI. *Version 3:* Construction School, Davisville, RI.

Length: *Version 1:* 8 weeks (241 hours). *Version 2:* 14 weeks (420 hours). *Version 3:* 14 weeks (420–432 hours).

Exhibit Dates: *Version 1:* 12/74–Present. *Version 2:* 10/69–11/74. *Version 3:* 7/58–9/69.

Objectives: To train enlisted personnel to perform as electricians and linemen.

Instruction: Lectures and practical experience in basic electrical theory, telephone communication, interior wiring, pole line construction, motors and generators, mathematics review, and electrical blueprint reading.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 2 semester hours in power generation and distribution and 2 in residential house wiring (7/76). *Version 2:* In the vocational certificate category, 7 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 7 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity on the basis of institutional evaluation (3/74).

NV-1714-0009

1. Basic Electricity and Electronics, Class AP (Modules 0–23)
2. Basic Electricity and Electronics, Class P

(Basic Electricity Phase of Class A Electronics Technician School)

Course Number: *All Versions:* A-100-0010; A-100-010. *Version 2:* A-100-011.

Location: Basic Electricity/Electronics School, Great Lakes, IL; Basic Electricity/Electronics School, Memphis, TN; Basic Electricity/Electronics School, Treasure Island, CA; Basic Electricity/Electronics School, Orlando, FL; Basic Electricity/Electronics School, San Diego, CA.

Length: *Version 1:* Self-paced average 1–8 weeks (150–264 hours). *Version 2:* 4–8 weeks (162–215 hours).

Exhibit Dates: *Version 1:* 6/75–Present. *Version 2:* 4/55–5/75.

Objectives: To provide enlisted personnel with training in basic electronics.

Instruction: *All Versions:* Lectures and laboratories in magnetism, field patterns, domain theory, Coulomb's law; AC generator operation; DC circuits, including resistor characteristics, voltage dividers, power calculations, and Kirchhoff's laws; AC circuits, including average, effective, and peak values, and phasor use; inductance and capacitance, including basic properties, types, universal time constant, reactance, and phase relationship; transformer introduction; and AC circuits impedance, phasor solutions, band width, filters, and resonance in series. *Version 1:* Also includes self-paced modules in basic electronics maintenance, basic circuit assembly and repair, troubleshooting simple amplifiers, power supply circuits, simple transistor circuitry, oscillator, multivibrator circuits, wave shaping circuitry, and some special solid state devices.

Credit Recommendation: *Version 1:* In the vocational certificate category, For Gunner's Mates (GM), Torpedoman's Mates (TM), Construction Electricians (CE), and Enginemen (EN), 3 semester hours in basic electronics; for all other ratings, 6 semester hours in basic electronics (9/77); in the lower-division baccalaureate/associate degree category, For Gunuer's Mates (GM), Torpedoman's Mates (TM), Construction Electricians (CE), and Enginemen (EN), 3 semester hours in basic electronics; for all other ratings, 6 semester hours in basic electronics (9/77). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-engineering majors (3/74).

NV-1714-0010

Construction Electrician, Class J (CE"J")

(Construction Electrician, Class B)

Course Number: *Version 1:* A-721-0019; A-721-0022. *Version 2:* Not available.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: *Version 1:* 17 weeks (510 hours). *Version 2:* 15–16 weeks (450–480 hours).

Exhibit Dates: *Version 1:* 7/70–Present. *Version 2:* 3/64–6/70.

Objectives: To train enlisted personnel to be construction electricians.

Instruction: *All Versions:* Lectures and practical exercises in basic electrical theory, power distribution, interior wiring, local and common battery telephone, interoffice communication systems, cable splicing and fault location, and AC motors. *Version 1:* Instruction includes electric power plant operation and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 9 semester hours in electricity (7/76); in the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (7/76). *Version 2:* In the vocational certificate category, 8 semester hours in electricity (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity on the basis of institutional evaluation (3/74).

NV-1714-0011

H-46 Electrical and Instrument Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/68–Present.

Objectives: To ttain maintenance personnel to maintain a specific electrical and instrument system.

Instruction: Lectures and practical exercises in the maintenance of the H-46 electrical and instrument system, including elements of power distribution, electrical power supply, starting and control systems, utility electric systems, and instruments and indicating systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1714-0012

1. Electrician's Mate, Class A1
2. Electrician's Mates, Class A

(Electrician's Mates, Class A, Part II Power and Lighting Equipment)

Course Number: *Version 2:* A-662-0015. *All Versions:* A-662-0016.

Location: *Version 2:* Service School Command, San Diego, CA. *All Versions:* Service School Command, Great Lakes, IL.

Length: *Version 1:* 8–9 weeks (258 hours). *Version 2:* 13–14 weeks (387–420 hours).

Exhibit Dates: *Version 1:* 3/76–Present. *Version 2:* 6/62–2/76.

Objectives: To train enlisted personnel to operate, maintain, and repair electrical equipment.

Instruction: *All Versions:* Lectures and practical exercises in electrical equipment operation, maintenance, and repair, including safety precautions and first aid, rotating-machinery introduction, AC and DC generators, rotary and magnetic amplifiers, hand-tools operation, maintenance and materiel management, single-phase motors, degaussing, AC and DC controllers, electrohydraulics and electropneumatics, and small-craft electrical systems. *Version 1:* Instruction includes three phase motors and generators and solid state controls. *Version 2:* Instruction includes solid-state controls of motors.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electricity and electrical laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (9/77). *Version 2:* In the vocational certificate category, 6 semester hours in electricity and electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electrical laboratory (12/68); in the upper-division baccalaureate category, 3 semester hours in industrial education (3/74).

NV-1714-0013

E-1B Electrical and Instrument Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/68–Present.

Objectives: To train maintenance personnel to operate and maintain the electrical and instrument systems of the E-1B aircraft.

Instruction: Lectures and practical exercises in the operation and maintenance of the electrical and instrument systems of the E-1B aircraft, including power supplies, power plant and accessories, controls, various circuits, structural control systems, heating and de-ice systems, fuel and oxygen systems, lighting systems, various electrical instruments, and Pitot and static instruments.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1714-0014

KA-3A/KA-3B Electrical and Instruments Organizational Maintenance

Course Number: C-602-3702; C-602-43.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (64 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train maintenance personnel to operate and maintain electrical equipment and instruments at the organizational level.

Instruction: Lectures and practical exercises in the operation and maintenance of electrical equipment and instruments, including DC and AC power, power plant accessories, actuators, lighting, heater and safety equipment, fuel quantity, light maintenance, various circuits, engine instruments, and the position-indicating, Hytrol anti-skid brake, air conditioning, and pressurization systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74)).

NV-1714-0015

Construction Electrician—Power and Communications Cable Splicing
(Construction Electrician Cable Splicer (Class C))
(CE"C" Cable Splicing)

Course Number: A-721-0023.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: 11-13 weeks (345-406 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train construction electricians to perform as cable-splicing technicians for telephone and power cable systems.

Instruction: Lectures and practical exercises in the installation and repair of telephone and power cables, including cable types, splicing techniques, and installation of telephone and high-voltage cables, cable termination, project planning, electrical properties of power cable insulation, and troubleshooting techniques and test equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical equipment maintenance (7/76); in the lower-division baccalaureate/associate degree category, credit in electrical equipment maintenance on the basis of institutional evaluation (7/76).

NV-1714-0016

Electric Motor Rewind, Class C

Course Number: A-662-0021.

Location: Fleet Training Center, Norfolk, VA; Naval Training Center, San Diego, CA.

Length: 5 weeks (150 hours).

Exhibit Dates: 8/73-Present.

Objectives: To train enlisted personnel in the techniques and procedures used in winding AC and DC motors.

Instruction: Lectures and practical exercises in the recording of data; construction of wiring diagrams; rewinding, assembling, and testing of DC motors, single-phase AC motors, and three-phase AC motors.

Credit Recommendation: In the vocational certificate category, 2 semester hours in AC/DC motors (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in AC/DC motors (6/75).

NV-1715-0001

Basic Electronics (MA-40)

Course Number: R-100-6209.

Location: Naval Air Reserve Training Command, U.S.A..

Length: 6 weeks (240 hours).

Exhibit Dates: 9/68-2/69.

Objectives: To provide selected Reserve personnel (on active duty) of the Naval Air Reserve Training Command with the opportunity to become familiar with extensive coverage of basic theoretical knowledge, safety, and alignment/troubleshooting procedures of the superheterodyne receiver and basic transmitter.

Instruction: Applied mathematics and essentials of electronics; series/parallel circuitry and magnetism; measuring devices; introduction to AC theory; AC circuits and resonance; electron principles and the diode; vacuum tube theory; amplifier circuits and systems; transmitters; receiver theory; transmission line, antenna, and wave-propagation theory; and semiconductor theory.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electronics (11/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electrical laboratory on the basis of demonstrated skills and/or institutional evaluation (11/73).

NV-1715-0002

Airborne Electronic Warfare, Class O

Course Number: None.

Location: Naval Air Technical Training Center, Glynco, GA.

Length: 8 weeks (304 hours).

Exhibit Dates: 5/68-Present.

Objectives: To train fleet personnel in electronic warfare principles and systems.

Instruction: Electronic countermeasures principles and systems; processing procedures; electronic countermeasures aircraft systems; electronic emissions; and electronic warfare.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

NV-1715-0003

ELINT Evaluation Operator/Officer

Course Number: D-150-016.

Location: Reconnaissance Attack Squadron Three, Naval Air Station, Albany, GA.

Length: 11 weeks (430 hours).

Exhibit Dates: 5/69-Present.

Objectives: To train officer and enlisted personnel to efficiently process and evaluate electronic intelligence data collected by RA-5C aircraft.

Instruction: IOIS Systems Cross-Training; basic ELINT intelligence; data display; ELINT evaluation; dissemination; maintenance consideration; operational problems; fleet operations; electronic data processing; photo interpretation; electronic countermeasures; teletype; digital plotter.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0004

AN/UPR-2 Ionospheric Sounder Set Maintenance (Electronics Technician, Class C1)

Course Number: A-101-0047.

Location: Service School Command, San Diego, CA.

Length: 4 weeks (119-120 hours).

Exhibit Dates: 5/71-Present.

Objectives: To provide selected trainees with the skills and related knowledge necessary to operate and maintain the AN/UPR-2 Oblique Ionospheric Sounder.

Instruction: Operation and system maintenance, including transmitted wave form and functional block diagram; technical maintenance, including frequency standard, master timing and programming, filter switching, frequency synthesizer, and digital code filter.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (11/77).

NV-1715-0005

Electronic Test Equipment Operation/Operational Use

Course Number: J-100-0700.

Location: Fleet Training Center, Mayport, FL.

Length: 2 weeks (57 hours).

Exhibit Dates: 11/71-Present.

Objectives: To train shipboard electronics maintenance and repair personnel in the correct methods of operation and application of electronic test equipment.

Instruction: Equipment theory of operation; equipment operational methods and techniques; successful utilization of electronic test equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (11/73).

NV-1715-0006

Electronics Technician Class C, AN/SPS-40A Radar Set Maintenance

Course Number: A-104-0050; A-104-0131.

Location: Naval Schools Command, Norfolk, VA; Naval Schools Command, San Diego, CA.

Length: 8 weeks (231-240 hours).

Exhibit Dates: 1/72-Present.

Objectives: To provide selected trainees with the skills and knowledge necessary to operate and maintain the AN/SPS-40A, and to operate and use associated test equipment.

Instruction: Power conversion; AN/SPS-40A radar set operation; and functional analysis of maintenance units and subunits such as antenna, air pressure and cooling systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0007

Electronics Technician, Class C, Electronics Material Officer

Course Number: A-4B-019.

Location: Naval School, Norfolk, VA.

Length: 4 weeks (97 hours).

Exhibit Dates: 7/70-Present.

Objectives: To provide selected officers with the necessary knowledge and skill to enable them to direct the administration of the electronics division aboard their ship.

Instruction: Administration; maintenance and materiel management systems; preventive and corrective maintenance; publications; field changes; electronic navigation, radar, communication, and electronic countermeasures systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0008

Electronics Technician, Class C, AN/SSM-5 Monitor Test Set Maintenance

Course Number: A-100-0022; A-100-0030.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/72-Present.

Objectives: To provide selected trainees with the skills and knowledge necessary to maintain the AN/SSM-5 monitor test set.

Instruction: Test set operation; basic operation of tape reader and line printer; power distribution; tape format and sequence; logic symbols and special circuits; test control block-diagram analysis; tape reader; parity and coincidence control; tape drive control; sequence counter and control; stimuli control; analog-to-frequency converter; decision comparator; digital data line printer; associated test equipment; preventive maintenance; troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0009

AN/UCC-1 Series Telegraph Terminal Maintenance (Electronics Technician, Class C1)

Course Number: A-101-0022; A-101-022; A-101-023.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 2 weeks (60-72 hours).

Exhibit Dates: 1/70-Present.

Objectives: To provide the skills and knowledge necessary to operate and maintain the AN/UCC-1, 1C, and 1D telegraph terminals, and to operate and use associated test equipment to the extent required for maintenance of the telegraph terminals.

Instruction: Operational characteristics and system configurations; location and identification of major units and subunits; test sets; operating procedures; AC and DC power distribution; frequency shift keyers; control attenuators; frequency shift converters; block and schematic diagram analysis; system troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (11/77).

NV-1715-0010

AN/WRC-1 Radio Set Maintenance (Electronics Technician, Class C1)

Course Number: A-101-0029.

Location: Service School Command, San Diego, CA; Fleet Training Group, Pearl Harbor, HI.

Length: 2 weeks (59-60 hours).

Exhibit Dates: 3/71-Present.

Objectives: To provide selected trainees with the skills and knowledge necessary to maintain the AN/WRC-1 radio set.

Instruction: Operation and familiarization; functional block diagram; radio receiver technical maintenance; frequency standard assembly; R-F amplifier; translator-synthesizer assembly; mode selector; I-F assemblies; chassis and main frame; troubleshooting; operation and maintenance of radio transmitter; FSK tone generator; audio amplifier; mode selector; I-F amplifier; antenna coupler operation and maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in communications systems (11/77).

NV-1715-0011

AN/WRT-2 Radio Transmitter Maintenance (Electronics Technician, Class C1)

(Electronics Technician Class C, AN/WRT-2 and AN/WRR-2)

Course Number: A-101-0031; A-101-0033; A-101-0032.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA; Naval Technical Training Command, San Francisco, CA.

Length: 3-4 weeks (90-110 hours).

Exhibit Dates: 1/71-Present.

Objectives: To provide selected trainees with the skills and knowledge necessary to maintain the AN/WRT-2 radio transmitting set.

Instruction: Operation of and familiarization with AN/WRT-2; AC/DC power distribution; modulator functional section-amplifier/power supply; RF amplifier and tuner functional section, RF amplifier; transmitter troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications systems (11/77).

NV-1715-0012

Electronics Technician, Class C, AN/UXH-2B Facsimile Recording Equipment Maintenance

Course Number: A-101-0035; A-101-0050.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 3 weeks (60 hours).

Exhibit Dates: 5/71-Present.

Objectives: To provide selected trainees with the skills and knowledge necessary to operate and maintain the AN/UXH-2B and CV-1066B/UX, and to operate and use associated test equipment.

Instruction: Maintenance and material management; introduction to AN/UXH-2B and CV-1066B/UX; operating procedures and safety; converter analysis and maintenance; recorder set analysis; troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0013

Electronics Technician, Indicator Group AN/SPA-40, Class C

Course Number: A-104-019; A-104-020.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/69-Present.

Objectives: To provide selected trainees with the skills and knowledge necessary to operate and maintain the AN/SPA-40 range/height indicator, and to operate and use associated test equipment.

Instruction: Familiarization and operation, including location and identification of units, assemblies, and subassemblies; technical maintenance, including AC power distribution, auto zero correction, DC power supplies, timing, height line cursor generation and servomechanism, range sweep deflection, height sweep deflection, marker generation and video amplifier, and intensity control; system maintenance and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0014

Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance

Course Number: A-193-025.

Location: Naval School, Norfolk, VA.

Length: 2 weeks (72 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train students to operate and maintain ship's navigation and aircraft inertial alignment systems (SNAIAS).

Instruction: Familiarization and operation, including SNAIAS functional block diagram, equipment, modes of operation, and alarms; technical maintenance, including block diagrams, data distribution, intercommunications system, test sets, troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0015

AN/SPN-40 Radio Navigation Set (Electronics Technician, Class C1)

Course Number: A-102-0080; A-102-0085.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/71-Present.

Objectives: To train students to operate and maintain the AN/SPN-40 radio navigation set.

Instruction: Equipment operation and familiarization; technical maintenance, including Loran A receiver and vertical deflection, oscillator-AFC section, framing section, divider section, rate selector and reset generator section, basic pulse repetition rate (BPRR), specific pulse repetition rate (SPRR), square wave generator, pedestal generator, deflection section, attenuator and gain control, and system troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (11/77).

NV-1715-0016

Electronics Technician Class C, AN/VCC-2 Shipboard System

Course Number: None.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 3 weeks (96 hours).

Exhibit Dates: 10/71-Present.

Objectives: To provide selected trainees with the skills and related knowledge necessary to maintain the AN/VCC-2 shipboard communications system.

Instruction: Maintenance and material management system; operation of and familiarization with the RT-524/VRC radio transmitter-receiver; functional analysis and maintenance of the receiver transmitter, including AC/DC power distribution and control circuits, VHF tuner and squelch assembly, modulator assembly, master oscillator and buffer amplifier, transmitter driver and power amplifier, power supply, and transistor adapter; functional analysis of the AN/VCC-2 telephone-telegraph terminal; functional analysis of the AN/SRA-60(V) antenna coupler, including RF, four-channel combiner, operational control section, monitoring and protection section, and power supply.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0017

Basic Electronic Warfare (EW) Equipment Operator

Course Number: K-233-0025; K-233-281.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 2 weeks (59 hours).

Exhibit Dates: 5/71-Present.

Objectives: To train enlisted personnel in the fundamentals and techniques of electronic warfare (EW) and EW equipment operation.

Instruction: Fundamentals of electronic warfare; electronic warfare support measures; signal recognition; analysis and evaluation; electronic countermeasures; equipment theory and operation; electronic intelligence collection procedures and ESM reporting procedures; basic electronic counter-countermeasures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

NV-1715-0018

Electronics Technician, Class C, Indicator Group AN/SPA-41 Maintenance

Course Number: A-104-0124.
Location: Naval School, Norfolk, VA.
Length: 3 weeks (80 hours).
Exhibit Dates: 7/70–Present.
Objectives: To train technicians to operate and maintain the AN/SPA-41 Shipboard Range/Height Indicator and associated test equipment.
Instruction: System familiarization and operational characteristics; location and identification of units, assemblies, and subassemblies; operating procedures; technical maintenance, including AC power distribution, auto zero correction, DC power supplies, timing, height line cursor generation and servomechanism, range and height computing section, range and height time share networks and sweep deflection, and range calibration, marking, and intensity; system troubleshooting.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0019

Electronics Technician Class C, AN/FGC-73 Teletypewriter Routing Set and AN/UGR-14 Inktronic Page Printer

Course Number: A-101-0048.
Location: Naval School, Great Lakes, IL.
Length: 6 weeks (180 hours).
Exhibit Dates: 11/72–6/77.
Objectives: To train students to maintain and program teletypewriter routing sets, the Inktronic page printer, and associated test equipment.
Instruction: Teletypewriter familiarization; message format; introduction to AN/FGC-73 system; logic fundamentals; core memories; TS-2723/FG-73 printed circuit board test; MX-8173/FGC format stripper; AN/UGR-14 Inktronic Page Printer; system maintenance and packaging of reparables.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0020

Electronic Warfare for Nonacoustic Operator, P3A/B(D)

Course Number: E-210-48.
Location: Fleet Aviation Specialized Operational Training Group, Pacific Fleet, Moffet Field, CA.
Length: 2 weeks (63 hours).
Exhibit Dates: 10/72–Present.
Objectives: To train antisubmarine warfare operators in electronic warfare intercept procedures, terminology, applications, and the skills of signal evaluation.
Instruction: Introduction to and definition of electronic warfare; ESM fundamentals; radar scans and types; passive receiver system AN-ALD-2B; pulse analyzer AN-ULA-2; pulse analyzer cameras; tactical voice procedures; electronic warfare logs; intercept procedures: electronic warfare; and signal identification.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

NV-1715-0021

Electronic Warfare Intelligence Operator

Course Number: E-221-34.
Location: Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.
Length: 4 weeks (132 hours).
Exhibit Dates: 10/72–Present.
Objectives: To train aircrew members in the fundamentals, techniques, and terminology of electronic warfare (EW), and in the operation of EW equipment.
Instruction: History of electronic warfare; radar fundamentals; EW equipment and operation; electronic intelligence (ELINT) operator procedures; logging; signal identification; ELINT publications familiarization; special intercept techniques; plotting; tactical missions.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0022

Electronic Warfare Officers and Supervisors Course

Course Number: K-2G-0013.
Location: Fleet Combat Direction Systems Training Center, Pacific, San Diego, CA.
Length: 2 weeks (58 hours).
Exhibit Dates: 5/72–Present.
Objectives: To train junior officers and senior enlisted radarmen in the fundamentals and techniques of electronic warfare (EW) and electronic intelligence (ELINT).
Instruction: Concepts of electronic warfare; duties and responsibilities of the EWO and supervisor; characteristics of electronic emissions; rapid and thorough evaluation of intercepted electronic emissions; threat radars and IFF systems; EW capabilities and ELINT.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

NV-1715-0023

Officer Electronic Warfare Operations

Course Number: K-2G-0026.
Location: Fleet Combat Direction Systems Training Center, Pacific, San Diego, CA.
Length: 4 weeks (117 hours).
Exhibit Dates: 5/72–Present.
Objectives: To train officers in the fundamentals and techniques of electronic warfare.
Instruction: Fundamentals of electronic warfare; fundamentals of electromagnetic radiation; electronic systems theory; friendly use of the electromagnetic spectrum; intelligence in support of electronic warfare; electronic warfare management; electronic warfare in support of military operations.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0024

Electronics Technician, Class C, AN/SPS-29 Radar Set

Course Number: A-104-0031.
Location: Naval Technical Training, Treasure Island, San Francisco, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 7/72–Present.
Objectives: To provide selected trainees with the skills and related knowledge necessary to maintain the AN/SPS-29 radar set.
Instruction: System operation; AC and DC power distribution; trigger generator and monitor function; transmitting channel; antenna function; receiving channel; AN/SPS-29 radar set maintenance and troubleshooting.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0025

Electrical Component Maintenance (UNREP)

(UNREP Electrical Component Maintenance United Controls)

Course Number: A-551-0026; A-551-0030.
Location: UNREP Schools Division of the Naval Schools Command, Treasure Island, San Francisco, CA.
Length: 10 weeks (294 hours).
Exhibit Dates: 12/68–Present.
Objectives: To train electricians and interior communications specialists to maintain the electronic and electronic-hydraulic components of highline-tensioned inhaul and outhaul winches, sliding blocks, transfer heads, and ram tensioners.
Instruction: Basic electricity; basic electronics; hydraulic interface with electric/electronic controls for UNREP winches; maintenance of power supplies; drive systems and control systems for sliding blocks; transfer heads, Drexel & Western gear multi-directional missile-handling trucks; maintenance of Cutler-Hammer and General Electric static logic controllers.
Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (11/73); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (11/73); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (11/73).

NV-1715-0026

Electronics Technician Class C, Data Transmission Group, Transmission Equipment Maintenance

Course Number: A-101-042.
Location: Naval School, Mare Island, Vallejo, CA.
Length: 14 weeks (411 hours).
Exhibit Dates: 1/70–Present.
Objectives: To train students with a background in electronics and communications theory to operate and maintain electronic data transmission equipment of the Naval Tactical Data System.
Instruction: Introduction and orientation to data transmission equipment; general troubleshooting; indoctrination and orientation to data transmission procedures; radio sets; antenna couplers; communications central equipment.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (11/73).

NV-1715-0027

Electronics Technician Class C, High Power Independent Single Sideband Transmitter (AN/FRT-39; AN/URT-19; AN/URA-30)

Course Number: A-101-0038.
Location: Electronics Technician Class C Naval Training Center, Great Lakes, IL..
Length: 4 weeks (120 hours).
Exhibit Dates: 11/72–7/74.
Objectives: To train students with electronic communications backgrounds to op-

erate and maintain the AN/FRT-39 transmitting set and auxiliary equipment.

Instruction: Characteristics of teletype signals; multichannel telegraph; transmission test set; audio distribution and patching; DC signal distribution; telephone terminal equipment; single-sideband fundamentals; multiplexing; spectrum analyzer; AN/FRT-39B transmitter; independent sideband receivers; AN/URA-30 modulator oscillator; system troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (11/73).

NV-1715-0028

Electronics Technician Class C, R-1524(P)/WRR Countermeasures Receiver Maintenance

Course Number: A-102-0098; A-102-0108.

Location: Naval Technical Training Schools, San Diego, CA; Naval Technical Training Schools, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/72–Present.

Objectives: To train students with electronics and communications backgrounds to operate and maintain the R-1524(P)/WRR countermeasures receiver and its associated tuning and test equipment.

Instruction: Familiarization with and operation of R-1524(P)/WRR countermeasures receiver; functional analysis and maintenance, including AC and DC power distribution, RF tuning units, IF amplifiers; isolation amplifier, AFC/AGC/squelch/video, and audio amplifier circuitry; troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (11/73).

NV-1715-0029

Radar Repeater Systems Maintenance (Electronics Technician, Class C1)

Course Number: A-104-0129; A-104-0130.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: *Version 1:* 3 weeks (90 hours). *Version 2:* 10 weeks (220–235 hours).

Exhibit Dates: *Version 1:* 10/77–Present. *Version 2:* 1/71–9/77.

Objectives: To provide the training required to maintain any switchboard-repeater system on board ship.

Instruction: *Version 1:* Operation and familiarization of signal distribution switchboards and a radar repeater. *Version 2:* Operation and system maintenance of switchboards, indicator groups, radar trainers, and signal data converters; circuit analysis; calibration; troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in electronics (11/77). *Version 2:* In the vocational certificate category, 2 semester hours in electronics (11/73).

NV-1715-0030

IOIC Intelligence Data System (Storage and Retrieval) Maintenance

Course Number: D-150-011.

Location: Reconnaissance Attack Squadron Three, Albany, GA.

Length: 15 weeks (600 hours).

Exhibit Dates: 5/69–Present.

Objectives: To train data systems technicians to perform center equipment maintenance and repair.

Instruction: Lectures and practical exercises in digital plotting systems and logic design; system timing; printers display equipment and position encoders; paper tape reader and punch; stereo comparison viewer, functions, logic, electromechanisms, and optics testing and maintenance; code matrix reader circuit analysis, logic, alignment, and maintenance; and system peripheral equipment maintenance and testing.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74).

NV-1715-0032

RA-5C Signal Data Converter Group Test Equipment Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–12/68.

Objectives: To train maintenance personnel to repair RA-5C signal data converter group test equipment.

Instruction: Lectures and practical exercises in operation, maintenance, and servicing of data converter and viewfinder test equipment and digital data system test equipment.

Credit Recommendation: In the vocational certificate category, credit in signal data converter group test equipment maintenance on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in signal data converter group test equipment maintenance on the basis of institutional evaluation (3/74).

NV-1715-0033

Mk XII IFF Systems, Class C

Course Number: Not available.

Location: *Version 1:* Service Schools Command, San Diego, CA. *Version 2:* Fleet Training Center, Norfolk, VA.

Length: 11 weeks (330 hours).

Exhibit Dates: 3/72–Present.

Objectives: To train enlisted personnel to maintain Mk XII IFF electronic systems.

Instruction: Lectures and practical exercises in Mk XII operation, malfunctioning components troubleshooting procedures and test equipment usage, preventive maintenance procedures, and electronic circuits and mechanical assemblies alignment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic systems, 1 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic systems (3/74).

NV-1715-0034

H-46 AN/APX-6B and AN/APA-89 Identification System Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel to maintain and service AN/APX-6B and AN/APA-89 electronics systems.

Instruction: Lectures and practical exercises in AN/APX-6B and AN/APA-89 electronic systems analysis, maintenance procedures, alignment, circuit and circuit-component repair, servicing techniques, and diagnosis and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic systems, 1 in electrical laboratory (3/74).

NV-1715-0035

Integrated Avionics Radar System Technician

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 9/71–Present.

Objectives: To train enlisted personnel in integrated avionics radar system operational theory, functional capability, and maintenance and servicing techniques.

Instruction: Lectures include avionics system theory, radar theory, altimeters, Doppler systems and power supplies; air data and tactical computer operation; air navigation computation analysis; malfunction isolation techniques; electrical systems circuit analysis and block diagrams; mathematics flow diagramming; inertial measurement; weapons systems release switchology and armament control; associated test equipment; and maintenance, servicing, and alignment procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 1 in laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0036

KC-130F AN/APN-59 Radar Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain the AN/APN-59 radar set and associated test equipment.

Instruction: Lectures in AN/APN-59 radar set maintenance, including block diagrams, functional operation of radar set controls, analysis of transmitter unit, power supplies, phantastron oscillator, gate and sweep generator, various circuits operation, antennas, amplifiers, and troubleshooting and alignment techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 1 in laboratory (3/74).

NV-1715-0037

1. Marine Air Traffic Control Navigational Aids Repairman, Class C
2. Marine Air Traffic Control Navigational Aids Maintenance

Course Number: C-103-2020.

Location: Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 8 weeks (267 hours). *Version 2:* 13 weeks (520 hours).

Exhibit Dates: *Version 1:* 5/73–Present. *Version 2:* 3/71–4/73.

Objectives: To train electronic technicians to install, inspect, test, maintain, and repair air control navigation equipment.

Instruction: Lectures and laboratories in radio direction-finding techniques; logic circuit techniques; and familiarization and maintenance of AN/GRD-11A direction-finding sets, AN/TRN-29 beacon-transponder sets, and radio beacon sets.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in aviation electronics (6/75). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications, 1 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0038

Marine Air Traffic Control Unit
Radar Repairman, Class C
(Marine Air Traffic Control Unit Radar Maintenance, Class C)

Course Number: C-103-2021.

Location: Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 8 weeks (267 hours). *Version 2:* 17 weeks (680 hours).

Exhibit Dates: *Version 1:* 5/73–Present. *Version 2:* 9/72–4/73.

Objectives: To train electronic technicians to site, install, inspect, test, maintain, and repair specific air control navigational equipment.

Instruction: Lectures and practical exercises in air control navigational equipment operation and maintenance, including AN/TPN-8A precision approach radar and AN/UPS-1 radar set maintenance, power distribution and supplies, antenna control, transmitter, radio frequency system, receiver operation and maintenance, and system analysis and alignment; and C-4150 control indicator and AN/APA-125 surveillance approach indicator circuitry, amplifiers, search servo system, and system alignment and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic communications and 1 in electronic communications laboratory (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communications (6/75). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications, 1 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0039

1. Marine Air Traffic Control Unit Maintenance Management, Class C
   (Marine Air Traffic Control Unit Maintenance Management, Class O)
2. Marine Air Traffic Control Unit Equipment Maintenance, Class C
3. Marine Air Traffic Control Unit Equipment Maintenance, Class C

Course Number: *Version 1:* C-103-2019; C-2G-2023.

Location: Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 3 weeks (120 hours). *Version 2:* 15 weeks (600 hours). *Version 3:* 18 weeks (720 hours).

Exhibit Dates: *Version 1:* 7/71–Present. *Version 2:* 2/69–9/71. *Version 3:* 2/66–1/69.

Objectives: To train radar technicians to operate and maintain air traffic control systems.

Instruction: *Version 1:* Lectures and practical exercises in air traffic control principles and in the supervision of the installation, maintenance, and repair of air traffic systems, navigational aids, and communication systems and associated equipment. *Version 2:* Lectures in installation, maintenance, testing, and repair of specific radar sets, including basic electronics review, transistor fundamentals review, and basic radar and test equipment review and components circuit analysis. *Version 3:* Lectures in installation, maintenance, testing, and repair of specific radar sets, including basic electronics review, transistor fundamentals review, and basic radar and test equipment review and components circuit analysis.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited technical nature of the course (3/74). *Version 2:* In the vocational certificate category, 3 semester hours in electronics, 3 in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electronics laboratory (3/74). *Version 3:* In the vocational certificate category, 3 semester hours in electronics, 3 in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, 1 in electronics laboratory (3/74).

NV-1715-0040

Submarine Sonar Technician A-1

Course Number: A-130-0029; J-130-0515; K-130-1007.

Location: Fleet Anti-Submarine Warfare Training Center, San Diego, CA.

Length: *Version 1:* 10–12 weeks (400–480 hours). *Version 2:* 16–18 weeks (640–720 hours).

Exhibit Dates: *Version 1:* 8/77–Present. *Version 2:* 4/70–7/77.

Objectives: To train enlisted personnel to operate and maintain specific submarine sonar systems and auxiliary equipment.

Instruction: *All Versions:* Lectures and laboratory in basic mathematics, vacuum tube and semiconductor devices, physics of sound, and specific sonar systems operation and maintenance techniques. *Version 1:* Emphasis is placed on sonar fundamentals and operation of specific sonar equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic communications and 1 in electronics laboratory (9/77). *Version 2:* In the vocational certificate category, 3 semester hours in electronic communications, 1 in laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0041

KC-130F AN/APN-59B Radar
Intermediate Maintenance

Course Number: C-102-3501.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 12/69–Present.

Objectives: To train maintenance personnel to maintain, repair, and test the AN/APN-59B radar set at the intermediate maintenance level.

Instruction: Lectures and practical exercises in AN/APN-59B radar set maintenance, testing and repair, including radar set operation and circuitry, block diagrams, cabling, oscillators, transmitters, indicator and power supply, antenna circuits, accessory equipment, and alignment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronics laboratory (3/74).

NV-1715-0042

Basic Sonarman
(Sonarman, Class A)

Course Number: 560.

Location: Fleet Sonar School, Key West, FL; Fleet Antisubmarine Warfare School, San Diego, CA.

Length: 24–30 weeks (931–1161 hours).

Exhibit Dates: 1/54–12/68.

Objectives: To train personnel to operate and perform preventive and corrective maintenance on sonar and allied equipment.

Instruction: The course consists of an operational phase and a maintenance phase. Maintenance phase includes fundamentals of AC and DC, DC series and parallel circuits, DC generators and motors, AC circuits, inductance and capacitance, transformers and alternators, power supplies, rectifiers, amplifiers, vacuum tubes, oscillators, transmitters, receivers, synchros, multivibrators, sonar and auxiliary equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics and additional credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0043

Data Systems Technician School,
Class A (Phase A-2)—Part I, CP-789

Course Number: A-150-0026.

Location: Naval Schools Command, Mare Island, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted personnel to troubleshoot the CP-789(V)/UYK computer.

Instruction: Lectures and practical exercises in troubleshooting the control, arithmetic, memory, and input/output sections of the CP-789(V)/UYK computer. (See NV-1715-0753 for Phase A-1.)

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0044

Data Systems Technician, Class
A(Phase A-2)—Part II, CP-642A/642B/USQ-20(V) Digital
Data Computer Maintenance
(Data Systems Technician, Class A(A-2), Part II CP-642B)

Course Number: A-150-0026; A-150-0066.

Location: Naval Schools Command, Mare Island, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 1/70–Present.

Objectives: To teach enlisted personnel to operate and repair digital data computers.

Instruction: Lectures and practical exercises in electronic and logical analysis of the control, arithmetic, memory, and input/output sections; and maintenance and repair procedures for digital data computers. (See NV-1715-0753 for Phase A-1.)

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0045

Data Systems Technicians, Class A, (Phase A-2)—Part III, CP-642A

Course Number: A-150-0026.

Location: Naval Schools Command, Mare Island, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted personnel who have some knowledge of digital computer fundamentals to operate, troubleshoot, and repair the CP-642A computer.

Instruction: Lectures and practical exercises in CP-642A computer operation; computer maintenance programming; and computer and peripheral equipment operation, maintenance, and repair. (See NV-1715-0753 for Phase A-1.)

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0046

E-2A Computer Indicator (AN/ASA-27) Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 22 weeks (880 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to perform shop maintenance on computer indicators.

Instruction: Lectures and practical exercises in operation, function, and shop maintenance of computer indicators, including computer system fundamentals and timing, intercept computer operations, programming, and in-flight navigation computer operations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74)

NV-1715-0047

Data Systems Technician—Peripheral Equipment Maintenance, Class C

Course Number: A-150-0051.

Location: Naval Schools Command, Mare Island, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train qualified computer technicians in the operation and maintenance of peripheral equipment.

Instruction: Practical experience in the operation and maintenance of RD-231/USQ-20(V) paper tape units, modified teletypewriter sets, and system-monitoring panels; and identification and use of management tools, including maintenance requirement cards.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0048

Data Systems Technician, Class C, Mk 11, Mod 2/4 Systems Group Maintenance

Course Number: A-150-060.

Location: Naval Schools Command, Mare Island, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train NTDS conversion equipment repairmen to maintain and repair NTDS/WDS Mark 11 systems.

Instruction: Practical experience in missile, gun, and weapon systems; maintenance and material management; functional analysis; logical description; and system switching and testing.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0049

Avionics Fundamentals, Class A

Course Number: Not available.

Location: Air Reserve Electronics Training Unit, Los Alamitos, CA.

Length: 12 weeks (520 hours).

Exhibit Dates: 6/64–12/68.

Objectives: To provide selected enlisted personnel with a basic understanding of electronic circuitry and test equipment.

Instruction: Lectures and practical experience in the fundamentals of radio, transmitter, transistor, and radar electronics.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 3 in electronic circuits (12/68).

NV-1715-0050

F4B AN/AJB-3A Loft Bomb Release Computer Set

Course Number: C-602-3083; C-602-3811.

Location: Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (72 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train maintenance personnel to test, maintain, and repair loft bomb release computers.

Instruction: Lectures and practical exercises in loft bomb release computer purpose and description, safety precautions, visual inspection procedures, functional testing and component repair, and associated test equipment and special tools.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0051

A-6 Bombardier Navigator Control Box and Associated Test Set, Intermediate Maintenance

(A-6 BNCN and BNCB Test Set, Intermediate Maintenance)

Course Number: C-102-3776.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train maintenance personnel to operate, troubleshoot, and maintain search radar equipment and test sets.

Instruction: Lectures and practical exercises in the theory and operation of radar set control and bombardier-navigator control box test sets, and maintenance and troubleshooting procedures.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0052

AN/ALM-109 Test Console and AN/ALQ-99 Tracking Receivers and Control Modulators Intermediate Maintenance

Course Number: C-102-3944.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 7 weeks (280 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train enlisted personnel to test, maintain, and repair radio receivers.

Instruction: Lectures and practical exercises in digital integrated circuits, and circuit analysis and maintenance procedures for functional circuitry of radio receivers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 2 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communications laboratory (3/74).

NV-1715-0053

AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance

Course Number: C-102-3946.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 11 weeks (440 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train enlisted personnel in the maintenance, repair, and functional testing procedures for special-purpose radio transmitters.

Instruction: Practical exercises in troubleshooting, repair, power distribution and control, countermeasures, and power supply modules.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 3 in electronic communications laboratory (3/74).

NV-1715-0054

AN/ALM-108 Receiver Test Console AN/ALQ-99 Receivers Intermediate Maintenance

Course Number: C-102-3945.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 8 weeks (320 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train enlisted personnel in the maintenance, repair, and testing of specific radio receivers.

Instruction: Lectures and practical experience in functional analysis and power generation, surveillance receivers, fault isolation, and circuit analysis.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 3 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communications laboratory (3/74).

NV-1715-0055

AN/ALQ-92 Countermeasures Set Intermediate Maintenance

Course Number: C-102-3708.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/73–Present.

Objectives: To train enlisted personnel to test, maintain, and repair specific electronic systems.

Instruction: Discussions and practical experience in basic digital logic, circuit analysis, and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 2 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic communications laboratory (3/74).

NV-1715-0056

AN/URT-23 RADIO TRANSMITTER WITH AN/URA-38 ANTENNA COUPLER MAINTENANCE (ELECTRONICS TECHNICIAN, CLASS C1)

(AN/URT-23(V) Radio Transmitting Set and AN/URA-38 Antenna Coupler Maintenance, Class C)

Course Number: A-101-0049; A-101-0051.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 4/72–Present.

Objectives: To train enlisted personnel in the operation and basic maintenance of specific radio transmitter sets.

Instruction: Practical and theoretical instruction in the operation and preventive and corrective maintenance of a single sideband transmitter.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics or communications (11/77).

NV-1715-0057

AN/ALQ-76 INTERMEDIATE MAINTENANCE

Course Number: C-102-3069.

Location: Air Maintenance Training Detachment, Cherry Point, NC.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train enlisted personnel in the maintenance, repair, and troubleshooting of specific radio transmitters.

Instruction: Practical experience in alignment, troubleshooting, and repair of radio transmitters.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 2 in electronic communications laboratory (3/74).

NV-1715-0058

AN/ARC-142 H.F. COMMUNICATIONS SYSTEM INTERMEDIATE MAINTENANCE

Course Number: C-102-3582.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train enlisted personnel in the maintenance and repair of specific transmitter-receivers.

Instruction: Practical experience in introduction to radio sets; system description; bench check-out; power distribution, including block-diagram and functional analyses; band selection; and fixed-frequency generation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0059

AN/ARC-143 COMMUNICATIONS SYSTEM INTERMEDIATE MAINTENANCE

Course Number: C-102-3581.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train enlisted personnel in the maintenance, repair, and functional testing of specific communications systems.

Instruction: Lectures and practical experience in communications system theory of operation, UHF radio test sets, system description, radio set control, and functional analysis.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0060

AN/ALQ-86 MID-BAND TUNER INTERMEDIATE MAINTENANCE

Course Number: C-102-3072.

Location: Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to maintain and repair tuners.

Instruction: Practical experience in tuner operation, check-out, alignment and trouble analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0061

SUBMARINE RADAR MAINTENANCE (ENLISTED)

Course Number: F-104-010.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train submarine force electronics technicians to maintain and repair AN/BPS-13 radar sets.

Instruction: Lectures and practical exercises in AN/BPS-13 operation theory, maintenance procedures, standard submarine test equipment, and safety precautions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0062

1. SUBMARINE GYROCOMPASS MK 19 MOD 3
2. SPERRY MK XIX MOD III GYROCOMPASS

Course Number: A-670-0042; F-623-015.

Location: *Version 1:* Fleet Ballistic Missile Submarine Training Center, Charleston, SC. *Version 2:* Submarine School, Groton, CT.

Length: *Version 1:* 4 weeks (120 hours). *Version 2:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 1/72–Present. *Version 2:* 8/67–12/71.

Objectives: To train strikers to operate and maintain submarine gyrocompasses and synchro signal amplifiers.

Instruction: Lectures and practical exercises in a review of trigonometry, electronics, transistors, and magnetic amplifiers; gyroscopic principles; and operation and preventive maintenance of the Sperry Mk 19 Mod 3A and 3R gyrocompasses.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0063

ELECTRONICS TECHNICIAN, CLASS C, SSBN NAVIGATION AIDS TECHNICIAN MAINTENANCE

Course Number: A-193-034.

Location: Electronics Technician School, Dam Neck, VA.

Length: 26 weeks (910 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train electronic technicians to operate and maintain environmental detector systems, frequency-time standards, Loran C receiving sets, radio navigation sets, and sonar sounding sets.

Instruction: Lectures and practical exercises in the operation of navigational subsystems of fleet ballistic missile submarines, including equipment familiarization and operation, technical maintenance, subsystem tie-in, and utilization of test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0064

ELECTRONICS TECHNICIAN, CLASS C, SSBN NAVIGATION AIDS, FBM TENDER NAVIGATION MAINTENANCE

Course Number: A-193-0037.

Location: Guided Missiles School, Dam Neck, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 11/72–12/74.

Objectives: To train electronic technicians to maintain navigational aids equipment.

Instruction: Lectures and laboratories in digital module test sets, sonar test sets, Loran-C switching units, electronic circuit plug-in units, and signal simulators; ancillary commercial test equipment; and advanced soldering and wire-wrapping techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0065

ELECTRONICS TECHNICIAN, CLASS C, SSBN SHIPS INERTIAL NAVIGATION, FBM TENDER NAVIGATION MAINTENANCE

Course Number: A-193-0036.

Location: Electronics Technician School, Dam Neck, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train electronics technicians to maintain inertial navigation systems.

Instruction: Lectures and laboratories in digital module test sets, Loran-C test systems, NAVDAC test sets, sonar test sets, SDC test sets, synchro/resolver test sets, and type 11 servo amplifier test sets; advanced soldering and wire-wrapping techniques; and ancillary commercial test equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluations (3/74).

NV-1715-0066

Electronics Technician, Class C, SSBN Ships Inertial Navigation System Mk 2 Mod 0-6 Technician

Course Number: A-193-0026.

Location: Guided Missiles School, Dam Neck, VA.

Length: 23 weeks (805 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train electronics technicians to operate and maintain Mk 2 ships inertial navigation systems, Mk 3 multispeed recorders, Mk 1 navigation operational check-out consoles, and Mk 3 navigation subsystem switchboards at design performance levels.

Instruction: Lectures and practical exercises in equipment familiarization and operation, technical maintenance, subsystem tie-in, and utilization of test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0067

A-6 AN/ASQ-61A Ballistics Computer Theory

Course Number: C-150-3766.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 7 weeks (280 hours).

Exhibit Dates: 11/71–Present.

Objectives: To train maintenance personnel in the operation of AN/ASQ ballistics computer sets.

Instruction: Lectures and practical exercises in flip-flops, computer organization, logic circuits, adders, and ballistics computer sets.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer systems (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer systems (3/74).

NV-1715-0068

A-6 AN/ASQ-61 Ballistics Computer Intermediate Maintenance

(A-6 AN/ASQ-61A Ballistics Computer Intermediate Maintenance)

Course Number: C-150-3763.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2–7 weeks (280–560 hours).

Exhibit Dates: 6/68–Present.

Objectives: To train maintenance personnel in the operation of AN/ASQ-61A ballistics computer sets.

Instruction: Lectures and practical exercises in ballistics computer sets, flip-flops, computer organization, logic circuits, and adders.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer systems (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in computer systems (3/74).

NV-1715-0069

AN/AJM-32(V) Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train fleet personnel in intermediate maintenance techniques, including inspection, disassembly, assembly, and troubleshooting.

Instruction: Lectures and practical exercises in operational theory, maintenance and troubleshooting, and automatic and semiautomatic testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0070

A-7E AN/ASN-91 Tactical Computer Intermediate Maintenance

Course Number: C-102-3784.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/71–Present.

Objectives: To train fleet maintenance personnel to operate, maintain, and repair the AN/ASN-91 computer, special support equipment, and loader-verifier.

Instruction: Lectures and practical exercises in the AN/ASN-91 computer system, including programming and data flow, computer circuit analysis, test benches, and loader-verifier units.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0071

A-6 Memory Drum Test Console, AN/ASM-316 (XN-1) and Card and Module Tester Intermediate Maintenance

Course Number: C-150-3769.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 7 weeks (280 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train maintenance personnel to operate and maintain AN/ASM-316 (XN-1) memory drum test consoles and card and module testers.

Instruction: Lectures and practical exercises in the theory of operation, maintenance, reliability testing, and repair of the memory drum test consoles, card and module testers, and ballistics computer sets.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0072

Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0

Course Number: A-121-0096; A-121-0097.

Location: *Version 1:* Guided Missiles School, Dam Neck, VA. *Version 2:* Training Center, Mare Island, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fleet Tartar systems supervisors to conduct a defense system operational test (DSOT), analyze the results, and initiate corrective actions.

Instruction: Lectures and practical exercises in DSOT analysis, including introduction to DSOT, DSOT and ADSOT procedures, DSOT practical, system casualty analysis, systems tests, specific radar test set, specific systems dynamic tester, and specific missile simulators.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1715-0073

AN/ALH-6 Recorder/Reproducer Intermediate Maintenance

Course Number: C-102-3073.

Location: Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel to maintain, operate, and service AN/ALH-6 recorder/reproducer systems.

Instruction: Lectures and practical exercises in A/D converters, digitizers, AN/ALH-6 systems, troubleshooting techniques, and test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0074

A6A Programmer, Semi-Automatic Test Equipment Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 14 weeks (560 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train maintenance personnel to maintain the programming test group equipment.

Instruction: Lectures and practical exercises in programming test groups, programming analyzer test benches, and GT-1 programming test stations.

Credit Recommendation: In the vocational certificate category, credit in computer laboratory on the basis of institutional evaluation (3/74).

NV-1715-0075

Mk NC-2 Plotter Mod 1A (Sperry) Maintenance, Class C

Course Number: A-623-0020; A-623-0021.

Location: Technical Training Command, Norfolk, VA; Technical Training Command, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 5/72–Present.

Objectives: To train enlisted personnel to maintain, troubleshoot, and repair the Mk NC-2 Mod 1A plotting systems.

Instruction: Lectures and practical exercises in review of basic electronics, synchro/servo systems, solid-state devices, plotting systems and tables, transistors, and voltage networks.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0076

Mk NC-2 Plotter Mod 2/2A Maintenance, Class C

Course Number: A-623-0015; A-623-0016.

Location: *Version 1:* IC, A School, San Diego, CA. *Version 2:* MOD Class C School, Norfolk, VA.

Length: *Version 1:* 4 weeks (160 hours). *Version 2:* 3 weeks (120 hours).

Exhibit Dates: *Version 1:* 8/71–Present. *Version 2:* 4/69–7/71.

Objectives: To train interior communications electricians to maintain, troubleshoot, and repair the Mk NC-2 Mod 2/2A plotting system and the dead-reckoning analyzer-indicator Mk 9 Mod 2.

Instruction: Lectures and laboratories in solid-state devices, voltage networks, transistors, synchro/servo systems, dead-reckoning analyzer-indicator, plotting tables, and troubleshooting procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74). *Version 2:* In the vocational certificate category, 2 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (3/74).

NV-1715-0077

AN/ARC-101 INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to repair and maintain specific radio transceivers.

Instruction: Practical experience in VHF receivers, circuit analysis, oscillators, transmitters, and power supplies.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0078

GROUND CONTROLLED APPROACH ELECTRONICS TECHNICIAN, RADAR SET AN/MPN-1B, CLASS C

Course Number: Not available.

Location: Air Technical Training Unit, Olathe, KS.

Length: 15 weeks (600 hours).

Exhibit Dates: 8/57–12/68.

Objectives: To train electronics technicians to operate and maintain ground control approach installations.

Instruction: Lectures and laboratories in review of basic electronics and radar circuits, advanced radar circuit theory, communications equipment, search radar systems, and precision radar systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0079

GROUND CONTROLLED APPROACH ELECTRONICS MAINTENANCE, RADAR SET AN/CPN-4A, CLASS C

Course Number: *Version 1:* C-103-1013. *Version 2:* C-103-13.

Location: Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 4 weeks (147 hours). *Version 2:* 17–18 weeks (696–712 hours).

Exhibit Dates: *Version 1:* 3/73–Present. *Version 2:* 3/66–2/73.

Objectives: To train electronic technicians to maintain and operate complete ground control approach installations.

Instruction: *All Versions:* Lectures and laboratories in radar circuit theory, synchroscopes, search radar systems, precision radar systems, and communications equipment. *Version 2:* Includes a complete introduction to basic radar circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional examination (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional examination (3/74); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional examination (3/74). *Version 2:* In the vocational certificate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0080

1. GROUND CONTROLLED APPROACH ELECTRONICS MAINTENANCE, RADAR SET AN/MPN-5, CLASS C
2. GROUND CONTROLLED APPROACH ELECTRONICS TECHNICIAN, AN/MPN-5, CLASS C

Course Number: Not available.

Location: *Version 1:* Air Technical Training Center, Glynco, GA. *Version 2:* Air Technical Training Center, Olathe, KS.

Length: *Version 1:* 17 weeks (696 hours). *Version 2:* 18 weeks (720 hours).

Exhibit Dates: *Version 1:* 4/66–12/68. *Version 2:* 11/54–3/66.

Objectives: To train electronics technicians to operate and maintain ground controlled approach installations.

Instruction: *All Versions:* Lectures and laboratories in radar circuit theory; search radar; precision radar; search and precision antennas and indicators; radar systems measurements and auxiliary equipment; and a review of basic radar circuits, including LCR, limiters, oscillators, multivibrators, and sweep and bootstrap circuits. *Version 2:* Includes basic AC and DC circuits and electronics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 8 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0081

1. GROUND CONTROLLED APPROACH MAINTENANCE (ENGINEMAN), CLASS C
2. GROUND CONTROLLED APPROACH MAINTENANCE (ENGINEMAN), RADAR SETS AN/CPN-4A AND AN/MPN-5, CLASS C
3. GROUND CONTROLLED APPROACH MAINTENANCE (ENGINEMAN), RADAR SETS AN/CPN-4A AND AN/MPN-5, CLASS C

(Ground Controlled Approach Engineman, Class C, AN/MPN-5)

Course Number: Not available.

Location: *All Versions:* Air Technical Training Center, Glynco, GA. *Version 3:* Air Technical Training Center, Olathe, KS.

Length: *Version 1:* 6 weeks (240 hours). *Version 2:* 8 weeks (320 hours). *Version 3:* 10 weeks (400 hours).

Exhibit Dates: *Version 1:* 7/68–Present. *Version 2:* 5/67–6/68. *Version 3:* 10/55–4/67.

Objectives: To train enginemen to operate and maintain all GCA power, air conditioning, heating, and air distribution equipment.

Instruction: Lectures and laboratories in the theory, operation, and maintenance of alternators, voltage regulators, lighting systems, batteries, and cable connections.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics (3/74). *Version 2:* In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics (3/74); in the upper-division baccalaureate category, credit in electricity or electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electricity or electronics (3/74); in the upper-division baccalaureate category, credit in electricity or electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0082

MK NC-2 PLOTTER MOD 0 MAINTENANCE, CLASS C

Course Number: A-623-0018; A-623-0019.

Location: Service Schools Training Division, Norfolk, VA; Service Schools Training Division, San Diego, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 8/71–Present.

Objectives: To train enlisted personnel to maintain, troubleshoot, and repair Mk NC-2 Mod 0 plotting systems.

Instruction: Lectures and laboratories in solid-state devices, servo systems, voltage networks, transistors, plotting tables, data converters, dead-reckoning indicators, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0083

Data Systems Technician—Data Conversion Group Equipment Maintenance, Class C

Course Number: A-150-0057.

Location: Naval Schools Command, Mare Island, CA.

Length: 20 weeks (600 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train data systems technicians to maintain and repair data conversion group equipment.

Instruction: Lectures and practical exercises in data systems theory and maintenance procedures, including digital data converter fundamentals, dynamic synchro data source equipment maintenance, radar azimuth converter maintenance, sonar azimuth converter fundamentals, video signals simulator theory of operation and computer message formats, signal data converter equipment maintenance, and beacon video processor system fundamentals and troubleshooting procedures.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0084

IOIC Systems Maintenance

Course Number: D-150-019.

Location: Intelligence Processing System Training Facility, Albany, GA.

Length: 28 weeks (1160 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel to maintain and repair EDP and intelligence display equipment.

Instruction: Lectures and practical exercises in EDP familiarization, theory of operation and maintenance procedures for input/output adapter, control signal converter, controller, program request panel, Itek viewer/printer, film titler, and Mitran copy camera; mechanical alignment procedures and troubleshooting techniques; input/output drawer and keyboard, pneumatics, power supply, and memory operation; and video, TV monitor sections, and electronics logic circuitry theory of operation, maintenance, repair and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer science (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in computer science (3/74).

NV-1715-0085

Electronics Technician, Class C, SSBN CNC Technician Maintenance

Course Number: A-193-0028.

Location: Electronics Technician, Class C School, Dam Neck, VA.

Length: 32 weeks (1116 hours).

Exhibit Dates: 6/70–Present.

Objectives: To train electronics technicians to operate, maintain, and repair central navigation computers, navigation control consoles, digital-to-digital converters, analog-to-digital converters, and magnetic tape equipment.

Instruction: Lectures and laboratories in familiarization, operation, and technical maintenance of central navigation computers, navigation control consoles, magnetic tape equipment, D/D and D/A converters, data processing subsystems, and navigation subsystems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 3 semester hours as a technical elective in electronics areas (3/74).

NV-1715-0086

Computer MK 1A Maintenance

Course Number: J-113-0138; J-113-1382.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 4 weeks (140 hours).

Exhibit Dates: 6/72–Present.

Objectives: To train shipboard fire control technicians to test and maintain MK 1 and MK 1A computers.

Instruction: Lectures and practical exercises in basic theory of operation of MK 1A computers and MK 1 Star Shell computers, testing and casualty analysis, and preventive and corrective maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0087

Data Systems Technician, Class C, AN/UYK-5(V) Peripheral Maintenance

Course Number: A-150-0042.

Location: Naval Schools Command, Mare Island, CA.

Length: 10 weeks (300 hours).

Exhibit Dates: 11/71–Present.

Objectives: To train data system technicians to operate, maintain, and repair computer peripheral equipment.

Instruction: Lectures and practical exercises in theory of operation, system maintenance, and troubleshooting of digital data recorder-reproducers, card reader-punch, data processing line printers, input-output keyboard printers, and motor generator/controllers.

Credit Recommendation: In the vocational certificate category, 8 semester hours in computer science (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in computer science (3/74).

NV-1715-0088

AN/SRC-20, AN/SRC-21 Radio Sets Maintenance (Electronics Technician, Class 1)

(Electronics Technician, AN/SRC-20, AM/SRC-21 Radio Set Maintenance)

(Electronics Technician, AN/URC-9, AN/SRC-20,AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance)

Course Number: A-101-0015; A-101-0016; A-101-015; A-101-016; A-101-017; A-101-011.

Location: Electronics Technician, Class C School, San Diego, CA; Electronics Technician, Class C School, Norfolk, VA; Electronics Technician, Class C School, Pearl Harbor, HI; Electronics Technician, Class C School, Treasure Island, CA.

Length: 3–4 weeks (90–160 hours).

Exhibit Dates: 5/69–Present.

Objectives: To train enlisted personnel to operate, maintain, and repair the AN/SRC-20/21 radio sets and associated test equipment.

Instruction: Lectures and laboratories in AN/SRC-20/21 radio set function during broadband, normal, retransmit, and tone modes of operation; radio set power requirements, frequency range, frequency selection, and output data; receiver, modulator, transmitter, channel selection, and antenna coupler signal characteristics and signal tracing by use of block diagrams; and radio set alignment, operational checks, and maintenance testing procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics or communications (11/77).

NV-1715-0089

Transceiver AN/SRC-20 Combined Maintenance

(AN/SRC-20 Radio Transceiver)

(AN/SRC-20, Operation and Maintenance, Enlisted)

(Radio Transceiver AN/SRC-20 Maintenance)

Course Number: A-101-0103; L-101-0015; F-101-016.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, CT.

Length: 3 weeks (80–90 hours).

Exhibit Dates: 5/68–Present.

Objectives: To train submarine radiomen and electronics technicians to operate, maintain, and repair the AN/SRC-20 radio transceiver.

Instruction: Lectures and laboratories in AN/SRC-20 operation principles, audio and modulator circuits, squelch circuits, frequency multiplier oscillator, power distribution and amplification, block diagram usage, voltage measurements, maintenance procedures, and basic and advanced troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications and 1 in electronic communications laboratory (9/77).

NV-1715-0090

Teletypewriter AN/UGC-20/25 Combined Maintenance

(AN/UGC-20A/25A Teletypewriter Set Maintenance)

(AN/UGC-20/25 Teletypewriter Set Maintenance)

Course Number: A-160-0064; A-160-0065; A-160-0066; F-160-0064; F-160-011.

Location: Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 5 weeks (150 hours).

Exhibit Dates: 10/68–Present.

Objectives: To train submarine radiomen and submarine tender personnel to perform maintenance and repair on the AN/UGC-20/25 teletype machine.

Instruction: Lectures and practical exercises in AN/UGC-20/25 teletype machine fundamentals and operating procedures for each section of the machine, fault isolation and repair to major subassemblies of the electrical and mechanical systems, routine maintenance, cleaning, and material usage.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electromechanical repair, 1 in electromechanical laboratory (9/77).

NV-1715-0091

Data Systems Technician, Class C,
Data Transmission Group, Data
Terminal

Course Number: A-150-017.

Location: Naval Schools Command, Mare Island, CA.

Length: 14 weeks (420 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel who have backgrounds in electronics and digital theory to operate and maintain data transmission equipment.

Instruction: Lectures and laboratories in data transmission equipment operation and block-diagram analysis, with emphasis on testing, maintenance, and repair of transmitter, receiver, and control sections.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics or computers (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as a technical elective in electronics or computer subjects (3/74); in the upper-division baccalaureate category, 3 semester hours as a technical elective in electronics or computer subjects (3/74).

NV-1715-0093

AN/AQH-4 Sound
Recorder/Reproducer Set
Intermediate Maintenance

Course Number: C-102-3596.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train fleet maintenance personnel to maintain AN/AQH-4 sound recorder/reproducer sets.

Instruction: Lectures and practical exercises in circuit analysis, alignment, adjustment, and troubleshooting of sound recording and reproducing equipment.

Credit Recommendation: In the vocational certificate category, credit in audio-visual techniques on the basis of institutional evaluation (3/74).

NV-1715-0094

AN/ARC-38A Single Side Band
Transceiver Intermediate
Maintenance

Course Number: C-102-3022.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/69–Present.

Objectives: To train maintenance personnel to maintain, repair, and test SSB transceiver sets.

Instruction: Lectures and practical exercises in theory of operation and maintenance procedures, including block-diagram and circuit analysis, bench testing, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0095

Electronics Technician (Class C)
AN/URC-58, AN/VRC-46 Radio
Sets Maintenance

Course Number: A-101-0036.

Location: Service School Command, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/72–Present.

Objectives: To train enlisted personnel to align, maintain, and repair AN/URC-58 and AN/VRC-46 radio transceiver sets.

Instruction: Lectures and practical exercises in maintenance procedures, block-diagram analysis, and troubleshooting procedures for AN/URC-58 and AN/VRC-46 transceivers.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0096

P-3A/B Communications Navigation
(COMM/NAV) Organizational
Maintenance

Course Number: C-102-3545.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (96 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train experienced technicians to maintain and repair radio navigation equipment.

Instruction: Lectures and practical exercises in radio navigation system operation; communication system organizational maintenance; and radio navigation equipment, including direction finders, radio altimeters, Loran receiver, TACAN, and marker beacon maintenance and repair.

Credit Recommendation: In the vocational certificate category, credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0097

Aviation Electronics Technician N
(Navigation), Class A

Course Number: None.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 9–10 weeks (360–384 hours). *Version 2:* 22 weeks (880 hours).

Exhibit Dates: *Version 1:* 12/58–12/68. *Version 2:* 5/56–11/58.

Objectives: To train enlisted personnel in communications equipment maintenance and repair.

Instruction: *All Versions:* Lectures and laboratories in communications equipment maintenance and repair, including UHF and HF transceiver circuits, test equipment, and troubleshooting procedures; and radio/radar navigational systems operation, test equipment, and troubleshooting procedures. *Version 2:* Additional material on AC and DC circuits, pulse circuits and techniques, and basic amplifiers and receivers.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronics, 1 in electrical laboratory (3/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, 3 in electronics, 3 in electronic circuits (12/68); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0098

AN/ARC-54 VHF Communication Set
Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Cp. Pendleton, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/69–Present.

Objectives: To train maintenance personnel to maintain, repair, and functionally test AN/ARC VHF communication sets.

Instruction: Lectures and practical exercises in the operation, circuitry, maintenance, and utilization of test equipment in troubleshooting and bench testing AN/ARC-54 VHF communication sets.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0099

AN/SRN-9 Satellite Radio Navigation
Set Maintenance (Electronics
Technician, Class C1)
(Electronics Technician, Class C,
AN/SRN-9 Radio Navigation Set)

Course Number: A-102-0081; A-102-0087.

Location: Service School Command, San Diego, CA; Technical Training Center, Memphis, TN; Fleet Training Center, Norfolk, VA.

Length: 5–6 weeks (160–180 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train technicians with experience in digital techniques to maintain AN/SRN-9 radio navigation sets.

Instruction: Lectures and practical experience in the operation, practical and corrective maintenance of a navigation receiver and antenna.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics or electronic communications (11/77).

NV-1715-0100

AN/ARC-94 Radio Transceiver
Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, New River, NC.

Length: 3 weeks (114 hours).

Exhibit Dates: 4/69–Present.

Objectives: To train enlisted personnel to maintain and repair AN/ARC-94 radio transceivers.

Instruction: Lectures and laboratories in AN/ARC-94 radio transceiver maintenance and repair, including single-sideband transmission and reception, and specific transmitter and receiver circuits.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0101

CH-53 COMMUNICATION, NAVIGATION AND IDENTIFICATION (CNI) SYSTEMS ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3441.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train enlisted personnel to repair helicopter electronic systems.

Instruction: Lectures and practical exercises in identification, assembly, organizational maintenance, and troubleshooting of CH-53 helicopter electronic systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0102

1. AVIONICS INTERMEDIATE, CLASS B
2. AVIONICS INTERMEDIATE, CLASS B (Intermediate Avionics, Class B)

Course Number: C-100-2012; C-102-2012; C-111-2012; C-112-2012.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 28–29 weeks (950–1120 hours). *Version 2:* 32–33 weeks (1264–1336 hours).

Exhibit Dates: *Version 1:* 6/71–Present. *Version 2:* 10/65–5/71.

Objectives: To train enlisted personnel to perform complex circuit analysis and avionics maintenance procedures.

Instruction: Lectures and practical exercises in mathematics and physics, electronics principles, digital and analog computers and test equipment operation, transmission and reception principles, airborne radar principles, systems analysis, and aviation maintenance and material management procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, certificate credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electricity or electronics, 4 in computer technology, 4 in mathematics (3/74); in the upper-division baccalaureate category, 5 semester hours in electricity or electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, certificate credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electricity or electronics, 4 in computer technology, 4 in mathematics (3/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0103

1. SOLID STATE THEORY FOR ELECTRONIC EQUIPMENT (Solid State Theory)
2. ELECTRONICS TECHNICIAN, CLASS C, SOLID STATE FUNDAMENTALS

Course Number: *Version 1:* K-113-2067. *Version 2:* None.

Location: *Version 1:* Fleet Training Center, San Diego, CA. *Version 2:* Electronics Technician, Class C School, Treasure Island, CA.

Length: *Version 1:* 2 weeks (60 hours). *Version 2:* 3 weeks (95 hours).

Exhibit Dates: *Version 1:* 10/72–Present. *Version 2:* 3/63–9/72.

Objectives: To provide electronics technicians with training in semiconductor and solid-state technology.

Instruction: Lectures and practical exercises in transistor and transistor amplifiers, single and multijunction semiconductors, and sine wave oscillators operation and theory; switching, gating, and pulsing circuits; and troubleshooting and servicing transistor circuits.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics, 2 in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0104

1. ELECTRICIAN'S MATE, CLASS C7
2. ELECTRICIAN'S MATE, CLASS B

Course Number: *Version 1:* A-662-0017.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 26 weeks (850 hours). *Version 2:* 30 weeks (900 hours). *Version 3:* 23 weeks (690 hours).

Exhibit Dates: *Version 1:* 12/76–Present. *Version 2:* 6/72–11/76. *Version 3:* 10/64–5/72.

Objectives: To train electrician's mates to repair electrical systems with electronic controls.

Instruction: Lectures and laboratories in trigonometry, AC and DC circuits, vacuum tubes and semiconductors, digital logic and logic circuits, AC and DC drive systems and controllers operation and troubleshooting procedures, degaussing systems operation and testing, voltage regulators, and AC and DC motors and generators operation and maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 7 semester hours in electricity and electronics, 2 in computer technology and 7 in electricity and electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 2 in computer technology and 1 in electronics laboratory (9/77). *Version 2:* In the vocational certificate category, 14 semester hours in electricity and electronics, 4 in computer technology, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 2 in computer technology, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 1 semester hour in digital logic, 1 in rotating machines, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68).

NV-1715-0105

COMMUNICATIONS SYSTEMS TECHNICIAN, CLASS C

Course Number: A-202-0013; A-580-0014.

Location: Communication Station, Washington, DC.

Length: 12 weeks (420–480 hours).

Exhibit Dates: 12/71–Present.

Objectives: To train enlisted personnel to operate specific types of communications equipment.

Instruction: Lectures and laboratories in SSB receiver operation, UHF and microwaves, multiplexing techniques, and the use and interpretation of wavemeter readings.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (6/75).

NV-1715-0106

1. AN/GRC-27A MAINTENANCE
2. AN/GRC-27A RADIO EQUIPMENT MAINTENANCE

Course Number: *Version 1:* K-102-276. *Version 2:* Not available.

Location: *Version 1:* Training Command, Pacific, Pearl Harbor, HI. *Version 2:* School Command, Treasure Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 5/69–Present. *Version 2:* 8/64–4/69.

Objectives: To train maintenance personnel who have backgrounds in basic electronic theory to maintain AN/GRC-27A radio equipment.

Instruction: Lectures on AN/GRC-27A radio components theory of operation, receiver and transmitter electrical and mechanical alignment procedures, modulator power supply adjustments, and troubleshooting and repair of all major components.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications, 1 in electrical laboratory (3/74).

NV-1715-0107

AN/UGA-3A MAINTENANCE

Course Number: F-160-010.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train technicians who have completed basic electronics training to maintain and troubleshoot the AN/UGA-3A code converter.

Instruction: Lectures and laboratories in AN/UGA-3A code converter maintenance and troubleshooting procedures, including equipment familiarization; maintenance and material management introduction; logic diagram analysis; digital logic circuits analysis and troubleshooting; and special circuits, output oscillator, demodulator, and power supply operation and maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in digital circuits (3/74).

NV-1715-0108

Data Systems Technician Class C Data Display Group Maintenance

Course Number: A-150-018.

Location: Naval Schools Command, Mare Island, CA.

Length: 20 weeks (600 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel with a background in electronics and digital theory to operate, maintain, and repair data display group equipment.

Instruction: Lectures and practical exercises in operation and maintenance of display consoles, display readouts, symbol generators, radar data switchboards, plug-in module test sets, pulse amplifiers, and communications systems of AN/SYA-4(V) and AN/UYA-4(V) data display groups.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0109

A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/70–Present.

Objectives: To train enlisted personnel to maintain and operate universal encoder test consoles.

Instruction: Lectures and practical exercises in test console description and operation, testing procedures, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0110

Data Systems Technician RD-294/UYK Magnetic Tape Unit Maintenance, Class C

Course Number: A-150-0073.

Location: Naval Schools Command, Mare Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train enlisted personnel with a background in electronics and digital theory to operate, maintain, and repair RD-294/UYK magnetic tape units.

Instruction: Lectures and laboratories in RD-294/UYK magnetic tape unit basics, operational control logic, magnetic tape operations, and system maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0111

Computer Detector (CP-413/ASA-27) Intermediate Maintenance

Course Number: C-150-3487; C-150-16.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 9 weeks (360 hours).

Exhibit Dates: 1/68–12/72.

Objectives: To train enlisted personnel who are familiar with digital fundamentals and avionics systems to operate, test, and repair computer detectors.

Instruction: Lectures and practical exercises in computer detector operation, function, and theory, including system power supply, block diagram, drum servo system, and timing generator operation; target detection, including radar magnetic drum, quantizers, density detectors, and IFF decoder and density detector; data acquisition, including data control and counting, servos and translators; target computation, including programmer, drum memory, height coordinate computer, and arithmetic and transfer logic; and test circuits and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0112

AN/APN-70B Loran System Intermediate Maintenance

(P-3 AN/APN-70 Loran System Intermediate Maintenance)

Course Number: C-102-3539.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/70–Present.

Objectives: To train maintenance personnel who have backgrounds in transistor theory to operate and maintain the AN/APN-70 Loran system.

Instruction: Lectures in AN/APN-70 components and equipment familiarization, including circuit analysis, block-diagram analysis, radar introduction, low-voltage power supplies, oscillators, and antennas; calibration and alignment adjustment procedures; bench setup troubleshooting Loran equipment and associated test equipment usage; and equipment malfunction isolation and repair procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0113

Communications Officer Ashore

Course Number: A-4C-0016.

Location: Education and Training Center, Newport, RI.

Length: 3–5 weeks (87–120 hours).

Exhibit Dates: 12/71–Present.

Objectives: To provide officers with instruction in communications procedures, cryptography, care and custody of registered publications, security, and operational communications.

Instruction: Lectures and practical exercises in communications procedures, cryptographic operations, and registered publications system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0114

P-3 Radar and IFF Systems Organizational Maintenance

Course Number: C-104-3531.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2–3 weeks (80–120 hours).

Exhibit Dates: 4/70–Present.

Objectives: To train maintenance personnel to maintain, calibrate, align, and maintain P-3 radar and IFF systems.

Instruction: Lectures and practical exercises in radar and IFF systems, components, and equipment; organizational maintenance; and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0115

P-3 AN/ASA-16 Indicator Group Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/70–Present.

Objectives: To train fleet maintenance personnel to operate, calibrate, align, and maintain AN/ASA-16 indicator groups.

Instruction: Lectures and practical exercises in indicator group components and equipment, organizational maintenance, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0116

F-8 AN/APR-30(V) Radar Set Intermediate Maintenance

Course Number: C-102-3858.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/69–Present.

Objectives: To train fleet maintenance personnel on the radar homing and warning sets.

Instruction: Lectures and practical exercises in theory of operation of radar homing and warning sets, test equipment, circuit analysis, and intermediate maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0117

P-3 PT-396/AS and OA-1768A/ASA-13 Plotter Group Intermediate Maintenance

Course Number: C-102-3555.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/70–Present.

Objectives: To train enlisted personnel to operate, maintain, and isolate malfunctions in PT-396/AS and OA-1768A/ASA-13 plotter groups.

Instruction: Lectures and practical exercises in plotting group maintenance and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0118

P-3 AN/APX-6 Radar Identification System Intermediate Maintenance

Course Number: None.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train maintenance personnel to operate, calibrate, align, and maintain AN/APX-6 radar identification systems.

Instruction: Lectures and practical exercises in radar identification system components and equipment, maintenance, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0119

Underwater Fire Control Group Mk 111 Maintenance

Course Number: A-130-0056.

Location: Fleet Antisubmarine Warfare Training Center, Pacific, San Diego, CA.

Length: 18 weeks (540 hours).

Exhibit Dates: 3/76–Present.

Objectives: To provide selected sonar technicians with the necessary skills to maintain the specified fire control equipment.

Instruction: Lectures and practical exercises in the preventive and corrective maintenance of sonar based fire control equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (9/77).

NV-1715-0120

P-3 AN/AQA-1 Sono Indicator System Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (96 hours).

Exhibit Dates: 12/70–Present.

Objectives: To train maintenance personnel to operate, calibrate, align, repair, and maintain AN/AQA-1 sono indicator systems.

Instruction: Lectures and practical exercises in AN/AQA-1 components and equipment familiarization, maintenance procedures, use of test equipment, and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0121

P-3 AN/AQA-5 Sonar Data Recording System Maintenance, No. 46

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel in the latest maintenance, modification, and operating procedures for AN/AQA-5 sonar data recording systems.

Instruction: Lectures and practical exercises in AN/AQA-5 sonar data recording system special circuits, functional block diagrams, various circuit analyses, system switching, and power supply operation and maintenance techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0122

Ground Controlled Approach Operator, Class C

Course Number: Not available.

Location: Air Technical Training Unit, Olathe, KS.

Length: 8 weeks (320 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To train enlisted personnel and officers to operate ground controlled approach equipment.

Instruction: Lectures and practical exercises in AN/CPN-4 and AN/MPN-5 radar sets, search radio/telephone procedures, precision radio/telephone procedures, and operational training, including normal approaches, hooded approaches, emergency approaches, and in-flight training.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0123

Ground Controlled Approach Controller, Class C

Course Number: C-222-2013.

Location: Air Technical Training Center, Glynco, GA.

Length: 5–6 weeks (220–240 hours).

Exhibit Dates: 3/65–Present.

Objectives: To train air controlmen, Marine Corps personnel, and radarmen in ground-controlled approach procedures and equipment.

Instruction: Lectures and practical exercises in ground-controlled approach basic operating procedures, ATC radar familiarization, surveillance control training, precision control procedures, and radar air traffic control facility organization and operation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0124

AN/BQS-8 (Series) Sonar Maintenance

Course Number: K-130-1025.

Location: Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 6/72–Present.

Objectives: To train sonar technicians to operate and maintain AN/BQS-8 (Series) sonar detecting-ranging sets.

Instruction: Lectures and practical exercises in theory and principles of continuous transmission, frequency modulated sonars; preventive and corrective maintenance of AN/BQS-8 (Series) Sonar; and the 3-M system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0125

Basic Navigation Watchstander (Navigational Technician Watchstander (Enlisted))

Course Number: F-193-076.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/69–Present.

Objectives: To train enlisted personnel to operate and monitor navigational center equipment.

Instruction: Lectures and practical exercises in operation of navigation subsystems primary power and data flow requirements of navigation subsystem equipment, and monitoring navigation centers.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0126

General Submarine Sonar Maintenance

Course Number: A-130-0027; K-130-567; K-130-1009.

Location: Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 6–17 weeks (240–595 hours).

Exhibit Dates: 8/70–Present.

Objectives: To train sonar technicians to operate and maintain all sonar equipment found aboard conventional, skate, skipjack, and SSBN-type submarines.

Instruction: Lectures and practical exercises in preventive and corrective maintenance of auxiliary and major sonar equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (8/77).

NV-1715-0127

Gun Fire Control Radar Mk 25 Mod 3 Maintenance

Course Number: J-113-0118; J-113-1181; J-113-1182.

Location: Fleet Combat Direction Systems Training Center, Atlantic, Dam Neck, VA; Fleet Combat Direction Systems Training Center, Atlantic, Newport, RI.

Length: 3 weeks (105 hours).

Exhibit Dates: 10/72–Present.

Objectives: To teach shipboard personnel to perform required tests, adjustments, troubleshooting, casualty analysis, repairs, and maintenance of Mk 25 Mod 3 radar equipment.

Instruction: Lectures and practical exercises in capabilities and limitations of gun fire control radar systems, including special circuits, power distribution circuits, transmitter and receiver sections theory and operation, automatic tracking and range determination systems circuits and operation, planned maintenance, and radar signal processing equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0128

Navigation Operational Checkout Console (NOCC) Mk 1 Mod 1 Advanced Maintenance

Course Number: A-193-0259; F-193-088.

Location: FBM Submarine Training Center, Charleston, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To provide navigation electronics technicians with advanced training in the operation and maintenance of Mk 1 and Mod 1 navigation operational checkout consoles theory.

Instruction: Lectures in NOCC circuitry review and Loran C signal simulator functional description; encoder test set; internal NOCC simulator; and troubleshooting, maintenance, and adjustment procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0129

Radar Mk 25 Mod 3 Maintenance

Course Number: K-113-2024.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fire control technicians and strikers to maintain and repair Mk 25 and Mod 3 radar systems.

Instruction: Lectures and practical exercises in Mk 25 and Mod 3 radar familiarization, AC power distribution, power supplies, transmission and receiving systems, indication system, automatic tracking and synchronizing systems, and radar systems maintenance and adjustments.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0130

ELECTRONICS TECHNICIAN, CLASS C, SSBN SHIPS INERTIAL NAVIGATION SYSTEM (SINS) MK 2 MOD 2/3 TECHNICIAN

Course Number: A-193-015.

Location: Guided Missiles School, Dam Neck, VA.

Length: 26 weeks (910 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train electronic technicians to operate and maintain ship's inertial navigation systems multispeed repeaters, sonar sounding sets, navigation operational checkout consoles, and navigation subsystem switchboards.

Instruction: Lectures and practical exercises in inertial navigation equipment familiarization, operation, theory of operation, technical maintenance, and subsystem tie-in, and use of associated test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0131

1. LORAN RECEIVING SET AN/WPN-5 OPERATION AND MAINTENANCE
2. LORAN RECEIVING SETS AN/SPN-38 AND AN/WPN-5 OPERATION, MAINTENANCE AND FUNCTIONAL CHECKOUT

Course Number: *Version 1:* L-193-026. *Version 2:* F-102-015.

Location: *Version 1:* Fleet Submarine Training Facility, Pearl Harbor, HI. *Version 2:* Submarine School, Groton, CT.

Length: 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 12/69–Present. *Version 2:* 10/66–11/69.

Objectives: To train enlisted personnel who have electronics backgrounds to operate and maintain AN/SPN-38 and AN/WPN-5 Loran C receiving sets.

Instruction: Lectures in Loran C receiving sets operation theory and logic analysis; logic fundamentals; binary mathemathics; Boolean algebra; and Loran C navigation principles, block-diagram and circuit analysis, generation system and generator logic analysis, voltage-controlled reference oscillator circuit analysis, strobe control and strobe pulse logic analysis, power supply, maintenance standards, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0132

ANTENNA COUPLER CU-1441 COMBINED MAINTENANCE
(Coupler, Antenna CU-1441/BRR Checkout and Maintenance)
(Antenna Series (CU-1441/BRR Multicoupler))

Course Number: A-101-0107; F-101-024; L-101-0031.

Location: Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60–65 hours).

Exhibit Dates: 5/67–9/77.

Objectives: To train rated electronics technicians and designated strikers to operate and maintain the CU-1441/BRR antenna multicoupler.

Instruction: Lectures in symbolic integrated maintenance system familiarization; technical manual analysis; circuit analysis; and operational, technical, and preventive maintenance alignment, adjustment and calibration on the CU-1441/BRR antenna multicoupler.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0133

UNDERWATER FIRE CONTROL GROUP MK 114 MAINTENANCE

Course Number: A-130-0057; A-130-0058.

Location: Fleet Sonar School, Key West, FL; Fleet Anti-Submarine Warfare Training Center, Pacific, San Diego, CA.

Length: 12–14 weeks (360–420 hours).

Exhibit Dates: 11/71–Present.

Objectives: To train enlisted personnel to perform maintenance on the specified fire control system.

Instruction: Lectures and practical exercises in Mark 114 fire control system maintenance, including introduction to weapons, basic maintenance techniques, relay transmitter and position indicator operation, input data flow and stabilization computer maintenance, and attack console operation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in synchro-resolver systems (9/77).

NV-1715-0134

1. AVIATION ELECTRICIAN'S MATE, CLASS B (ADVANCED)
2. AVIATION ELECTRICIAN'S MATE, CLASS B

Course Number: None.

Location: Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 26 weeks (1040 hours). *Version 2:* 33 weeks (1320 hours).

Exhibit Dates: *Version 1:* 10/65–12/68. *Version 2:* 8/56–9/65.

Objectives: To provide aviation electrician's mates with advanced technical training in electricity and electronics.

Instruction: Lectures and practical exercises in advanced principles of DC theory, AC theory, and electronics; aviation electrical and electronic equipment, including motors, generators, aircraft compasses, navigational equipment, flight control equipment, and analog and digital computers; troubleshooting procedures; principles of leadership and management; and supply and maintenance functions.

Credit Recommendation: *Version 1:* In the vocational certificate category, 15 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional examination (3/74). *Version 2:* In the lower-division baccalaureate/associate degree category, 9 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 9 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0135

AVIATION ELECTRICIAN'S MATE, CLASS B (INTERMEDIATE)

Course Number: C-602-2014.

Location: Air Technical Training Center, Memphis, TN; Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 20 weeks (833 hours). *Version 2:* 23 weeks (936 hours).

Exhibit Dates: *Version 1:* 6/74–Present. *Version 2:* 10/65–5/74.

Objectives: To provide aviation electrician's mates with advanced technical training in electricity and electronics.

Instruction: Lectures and practical exercises in advanced principles of DC theory, AC theory, and electronics; aviation electrical and electronic equipment, including motors, generators, aircraft compasses, navigational equipment, flight control equipment, and analog and digital computers; troubleshooting procedures; principles of supervision and management.

Credit Recommendation: *Version 1:* In the vocational certificate category, 15 semester hours in electricity or electronics (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic technology, 3 in computer technology, and 3 in machinery technology (6/75). *Version 2:* In the vocational certificate category, 15 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0136

MK 152 COMPUTER COMMON CORE

Course Number: A-113-0068.

Location: Service School Command, Great Lakes, IL.

Length: 8 weeks (296 hours).

Exhibit Dates: 1/75–Present.

Objectives: To train personnel in corrective and preventive maintenance of the Mk 152 computer and its I/O console and motor generator set.

Instruction: Topics include the recognition of normal and abnormal operation and the use of diagnostic programs to identify malfunction during maintenance of the Mk 152 computer and associated I/O console. Also includes preventive maintenance and repair of the Mk 9 motor generator set.

Credit Recommendation: In the vocational certificate category, 2 semester hours in computer systems and 3 in computer systems laboratory (9/77).

NV-1715-0137

1. Avionics Advanced, Class C7
   (Avionics Advanced, Class B)
2. Avionics Advanced, Class B
   (Avionics, Class B)
   (Aviation Electronics
   Technician/Aviation Fire Control
   Technician, Advanced Class B)
3. Aviation Electronics Technician,
   Class B

Course Number: C-100-2011; C-102-2011; C-111-2011; C-112-2011.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 26 weeks (866-1040 hours). *Version 2:* 31-32 weeks (1256-1280 hours). *Version 3:* 40 weeks (1600 hours).

Exhibit Dates: *Version 1:* 6/71-Present. *Version 2:* 4/59-5/71. *Version 3:* 4/55-3/59.

Objectives: To train noncommissioned officers to maintain and supervise the maintenance of avionics systems.

Instruction: *All Versions:* Lectures and practical exercises in algebra, trigonometry, electricity and magnetism, AC and DC circuits, basic electronics, small-signal and power amplifier analysis, synchros, servos, transmission lines, antennas, and modulation techniques. *Version 1:* Instruction includes semiconductors, rectifiers, power supplies, amplifiers, oscillators, limiters, clampers, multivibrators, counters, CRTs, and analog computers. *Version 2:* Instruction includes analytical geometry, calculus, limits, differentiation, integration, integrals, transcendental functions, partials, double integrals, infinite series, differential equations, atomic physics, and digital computers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in mathematics, 3 in physics, and 9 in electricity (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in mathematics, 3 in physics, and 9 in electricity (6/75). *Version 2:* In the vocational certificate category, 20 semester hours in mathematics, physics, and electrical engineering (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in mathematics, 3 in physics, 10 in electricity or electronics (3/74); in the upper-division baccalaureate category, 5 semester hours in mathematics, 5 in physics, 5 in electrical engineering (12/68). *Version 3:* In the vocational certificate category, 25 semester hours in physics and electrical engineering (3/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in physics and electrical engineering (3/74); in the upper-division baccalaureate category, 6 semester hours in physics (electricity), 12 in electrical engineering (12/68).

NV-1715-0138

Aviation Fire Control Technician (F) Conversion (Class C)

Course Number: None.

Location: Air Weapons Systems School, Jacksonville, FL.

Length: 27 weeks (1080 hours).

Exhibit Dates: 8/57-12/68.

Objectives: To train enlisted personnel to inspect, test, and repair aircraft armament systems.

Instruction: Lectures and practical experience in AC and DC circuit fundamentals and the inspection, testing, and repair of communication circuits, gyroscopes, vacuum tubes, radar, accelerometers, optics, and servomechanisms.

Credit Recommendation: In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 4 semester hours in electricity or electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0139

Aviation Fire Control Technician (B) Conversion (Class C)

Course Number: Not available.

Location: Air Weapons Systems School, Jacksonville, FL.

Length: 27 weeks (1080 hours).

Exhibit Dates: 8/57-12/68.

Objectives: To train Navy and Marine Corps enlisted personnel to inspect, test, troubleshoot, and repair aircraft armament control systems.

Instruction: Lectures and practical experience in aircraft armament control systems inspection, testing, troubleshooting, and repair, including AC and DC circuits fundamentals, gyroscopes, accelerometers, optics, vacuum tubes, radar, servomechanisms, and communication circuits.

Credit Recommendation: In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68).

NV-1715-0140

Aviation Fire Control Technician F(Armament Control), Class A

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 24 weeks (960 hours).

Exhibit Dates: 6/56-12/68.

Objectives: To train Navy and Marine Corps enlisted personnel to isolate electrical and mechanical malfunctions in fire control systems.

Instruction: Lectures and practical exercises in aviation fire control systems, AC circuits, resonance, vacuum tubes, audio amplifiers, radio receivers and transmitters, servomechanisms, and troubleshooting and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0141

Aviation Fire Control Technician B (Bomb Director), Class A

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 24 weeks (960 hours).

Exhibit Dates: 6/56-12/68.

Objectives: To train Navy and Marine Corps enlisted personnel to isolate and troubleshoot electronic and mechanical malfunctions in fire control equipment.

Instruction: Lectures and practical experience in AC circuit fundamentals; series and parallel resonant circuits; vacuum tube characteristics, including diodes, triodes, tetrodes, and pentodes; full- and half-wave rectifiers and filter circuits; audio frequency amplifier basics, including R-C, impedance, and transformer coupled amplifiers; power amplifiers; receiver alignment and troubleshooting; and radio receiver theory, including amplifiers, detectors, superheterodyne systems, and I-F systems.

Credit Recommendation: In the vocational certificate category, 9 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics for non-engineering majors (3/74).

NV-1715-0142

F-4 Basic Electrical Systems Organizational Maintenance

Course Number: C-602-3821.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/73-Present.

Objectives: To train enlisted personnel to repair F-4 aircraft electrical systems.

Instruction: Lectures and practical exercises in F-4 aircraft AC and DC electrical generation systems; power distribution; transformers; and hydraulic, pneumatic, fuel, attitude reference, and flight control systems maintenance.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics or electronics laboratory, 2 in hydraulics and fluids (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or electronics laboratory, 1 in hydraulics and fluids (3/74).

NV-1715-0143

RA-5C Panoramic Camera Shop Maintenance

Course Number: C-100-3745.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train maintenance personnel to maintain and service electronic camera systems.

Instruction: Lectures and practical exercises in an introduction to panoramic cameras, test equipment, panoramic camera control electronics and automatic exposure control, mounts and mount electronics, and maintenance of panoramic cameras.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0144

AN/APN-120 Electronic Altimeter Intermediate Maintenance

Course Number: C-102-3742.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/68-Present.

Objectives: To train electronic repairmen to maintain electronic altimeters.

Instruction: Lectures and practical exercises in altimeter principles; low- and high-altitude systems theory, control circuits, power supply, amplifiers, modulators, oscillators, and test equipment maintenance; and electronic countermeasures equipment, operation, maintenance, and testing procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics and electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics and electrical laboratory (3/74).

NV-1715-0145

RA-5C AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance

Course Number: C-102-3741.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 5/68–Present.

Objectives: To train maintenance personnel to repair integrated electronic airborne systems.

Instruction: Lectures and practical exercises in UHF communications repair, tactical air navigation system principles, pulse coding and decoding techniques, and antenna and intercommunication system theory and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (3/74).

NV-1715-0146

A-7E AN/ASM-375 Inertial Measurement System Test Set Intermediate Maintenance

Course Number: C-102-3798.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel to repair inertial measurement system test sets.

Instruction: Lectures and practical exercises in inertial measurement system theory and maintenance techniques, including digital fundamentals, logic functions, trace signal flow, power supplies, switching units, and programming.

Credit Recommendation: In the vocational certificate category, 4 semester hours in digital computer fundamentals (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computer fundamentals (3/74).

NV-1715-0147

Mk 35 Power Drive Maintenance for 3"/50 Caliber Rapid Fire Gun Mount

Course Number: K-041-2051.

Location: Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to perform preventive and corrective maintenance and casualty analysis on the 3"/50 Mk 35 power drive rapid-fire gun mount.

Instruction: Lectures and practical exercises in Mk 35 power drive description, function, and operation; power control, gun mount control, and motor field control circuits; and inspection, testing, and preventive and corrective maintenance procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0148

CHAFFROC MK 28 Mod 1 Launcher Systems Maintenance

Course Number: K-041-2010.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train enlisted personnel who have experience in basic hydraulics and electricity to operate, load, and launch decoys.

Instruction: Lectures in basic electrical review, including Ohm's law, magnetism, conductors, resistors, insulators, circuits, meters, and batteries; hydraulics principles, including Pascal's law, Bernoulli's law, and hydraulic pumps; and launch operation, including electrical firing circuits, applied hydraulics, and local and remote control techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0149

Solid State Circuit Troubleshooting Techniques

Course Number: C-000-3189.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train maintenance personnel to troubleshoot and repair solid-state electronic circuits.

Instruction: Lectures and practical exercises in solid-state circuits and troubleshooting, including diode limiters, rectifiers, detector circuits, silicon controlled rectifier circuits, basic types of transistor circuits, multivibrators and oscillators, DC and operational amplifiers, and test equipment for troubleshooting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0150

C-2A Electrical and Instruments Organizational Maintenance

Course Number: C-602-3491.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/67–Present.

Objectives: To train aviation electricians to repair, maintain, and troubleshoot aircraft electrical and instrument systems.

Instruction: Lectures and practical exercises in aircraft AC and DC power systems operation, circuit analysis, maintenance, and repair; and aircraft utility, environmental, instrumental, and electrical systems maintenance, repair, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74).

NV-1715-0151

F-4B 20 KVA and AN/AJB-3A Electrical Organizational Maintenance

Course Number: C-602-3825.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train fleet maintenance personnel to maintain power generating systems and loft bomb release computer systems on F-4B aircraft.

Instruction: Lectures and practical exercises in circuit analysis and organizational maintenance of power generating and loft bomb release computer systems, use of test equipment, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0152

RA-5C Photographic Electronics Fundamentals

Course Number: C-602-3748.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/70–Present.

Objectives: To teach maintenance personnel the fundamentals of electrical systems, electronics, and transistors in preparation for camera shop maintenance instruction.

Instruction: Lectures and practical exercises in basic electronics and solid-state electronics, including resistance, inductance, capacitance, circuits, conductors, transistors, power supplies, semiconductor devices, and test equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics and electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics and electronics laboratory (3/74).

NV-1715-0153

F-4B/J Advanced Electrical Organizational Maintenance

Course Number: C-602-3822.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/72–Present.

Objectives: To train fleet maintenance personnel to maintain F-4B/J power-generating, air data computer, and automatic flight control groups.

Instruction: Lectures and practical exercises in power-generating systems, air data computer sets and related systems, automatic flight control groups, circuit analysis, and organizational maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (3/74).

NV-1715-0154

1. Aviation Antisubmarine Warfare (AASW) Technician, Class A (Aviation Electronics Technician S (Antisubmarine), Class A)
2. Aviation Electronics Technician S (Antisubmarine), Class A

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 9–11 weeks (342–360 hours). *Version 2:* 22 weeks (880 hours).

Exhibit Dates: *Version 1:* 12/58–12/68. *Version 2:* 5/56–11/58.

Objectives: To train enlisted personnel to maintain and repair antisubmarine warfare equipment.

Instruction: *All Versions:* Lectures and practical exercises in antisubmarine warfare equipment repair, including airborne sonar, special detecting systems, sonobuoy systems, magnetic airborne detection systems, and dipping sonar equipment. *Version 1:* Instruction includes integrated display systems repair. *Version 2:* Instruction includes electronic fundamentals; UHF and VHF; transmitter theory; and radar electronics, including amplification, rectification, power amplifiers, AC fundamentals, and series-parallel resonance.

Credit Recommendation: *Version 1:* No credit because of the limited technical nature of the course (3/74). *Version 2:* In the vocational certificate category, 9 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronics, 3 in electronic circuits, and credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0155

FIRE CONTROL TECHNICIAN, CLASS A (PHASES I AND II)

Course Number: A-113-0010; A-113-0012; A-113-0019; A 113-0021.

Location: Training Center, Bainbridge, MD; Training Center, Great Lakes, IL; Training Center, Mare Island, CA.

Length: *Version 1:* Phase I, 11 weeks; Phase II, 13 weeks (Phase I, 330 hours; Phase II, 390 hours). *Version 2:* Phase I, 18 weeks; Phase II, 14 weeks (Phase I, 520 hours; Phase II, 440 hours). *Version 3:* 31 weeks (930 hours).

Exhibit Dates: *Version 1:* 7/75–Present. *Version 2:* 1/68–6/75. *Version 3:* 1/56–12/67.

Objectives: To train enlisted personnel with prior electrical experience in complex weapons guidance and control systems.

Instruction: *Version 1:* Phase I: Lectures and practical exercises in the use of fire control equipment and all related equipment needed to keep the fire control system operational including test equipment, transmitters, receivers, motor-generators, gyros, syncros, resolvers, servo system fundamentals, oscilloscope operation, amplifiers, oscillators, and wave forming circuitry without a rigorous mathematical treatment. Phase II: Lectures and laboratory exercises in numbering systems and arithmetic, logic blocks, Boolean expressions and realizations, adders, counters, digital computers, I/O systems, converters (AD and DA), analog computer fundamentals, encoders, decoders, core memory, and fire control radar systems. *Version 2:* Lectures and practical exercises in theory, operation, maintenance and repair of weapons guidance and control systems, including mathematics, magnetic amplifiers, gyroscopes, mathematical analysis of electronic circuits, theory and construction of computers, solution types of analog and digital computing devices, A-D and D-A conversion, Boolean algebra, binary and actual number systems, logic circuitry and diagrams, programming methods and troubleshooting procedures, test equipment theory and usage, solid-state electronics. *Version 3:* Topics include basic electricity, synchros, servos, and basic and advanced electronics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic electronics, 2 in electromechanical systems operation, and 2 in electronics laboratory for Phase I (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronic fundamentals for Phase I and 5 semester hours in digital and radar electronics and 2 in digital and radar electronics laboratory for Phase II (9/77). *Version 2:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity, radio, or electronics for Phase I and 3 in electricity, radio, or electronics for Phase II (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0156

MINIATURE COMPONENT REPAIR

Course Number: C-000-3182.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Meridian, MS; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Kingsville, TX; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/73–Present.

Objectives: to train maintenance personnel to repair printed circuit boards.

Instruction: Lectures and laboratories in selection and use of handtools for maintenance and soldering of printed circuits, terminals, and conductor pins, and latest methods on conformed coating and component removal from printed circuit boards; repair of circuit boards, runs, and eyelets; techniques of soldering on printed circuit boards, for making connections to turret terminals, hook and eyelet terminals, and bifurcated terminals; and inspection and evaluation of soldered electrical connections.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0157

MICROMINIATURE COMPONENT REPAIR INTERMEDIATE MAINTENANCE

Course Number: C-000-3187.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train maintenance personnel to repair microminiature printed circuits.

Instruction: Lectures and laboratories in selection and use of the proper hand tools for repair and soldering of microminiature printed circuits, digital encoders, and solderable connectors; methods of microminiature disassembly, circuit board laminate and conductor repair, electronic soldering, correct splicing of electrical wire, electroplating electronic circuits, repairing plastic edge-lighted panels, and maintenance of microminiature repair stations.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0158

SONAR TECHNICIAN, CLASS B (Advanced Sonarman)

Course Number: C-570; K-130-570.

Location: Fleet Antisubmarine Warfare School, San Diego, CA; Fleet Sonar School, Key West, FL.

Length: 33–44 weeks (989–1232 hours).

Exhibit Dates: 1/64–Present.

Objectives: To train enlisted personnel in electronics and physics fundamentals applicable to sonar equipment and systems.

Instruction: Lectures and practical exercises in mathematics, including basic trigonometry; AC and DC circuit fundamentals; network theorems; transistors, power supplies, amplifiers, and oscillators; pulse and switching circuits; amplitude and frequency modulation and detection; analog and digital computer principles; and servomechanisms.

Credit Recommendation: In the vocational certificate category, 15 semester hours in electricity or electronics and credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 6 semester hours in electricity or electronics (3/74).

NV-1715-0159

A6A AN/AVA-1 VERTICAL DISPLAY INDICATOR GROUP AND ASSOCIATED TEST EQUIPMENT INTERMEDIATE LEVEL MAINTENANCE

Course Number: C-198-3761.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 11 weeks (440 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train technicians to diagnose, troubleshoot, maintain, and service the A6A AN/AVA-1 radar vertical display system.

Instruction: Lectures and practical exercises in basic electronic theory, including diodes, transistors, and cathode ray tubes; radar review; emphasis on radar and video receiver circuit purpose, location, and block diagram description; semiautomatic checkout equipment familiarization and application to troubleshooting the video display and radar receiving system.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0160

1. Photographic Equipment Maintenance
2. Photographic Equipment Repair, Class C

Course Number: C-670-2012; C-670-12.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: *Version 1:* Self-paced 15 weeks (530 hours). *Version 2:* 14–15 weeks (556–600 hours).
Exhibit Dates: *Version 1:* 8/75–Present. *Version 2:* 10/63–7/75.
Objectives: To train photographer's mates to repair standard mechanical photographic equipment used in naval photography.
Instruction: *Version 1:* Course uses modular, self-paced individualized instruction as the primary instructional method with a heavy emphasis on performance. It includes eight modules and a five-day performance laboratory. There is an optional nine-day aerial cameras and systems module which some students elect to take instead of the eight modules. Note: Students who attend only the nine-day aerial cameras and systems module are not eligible for credit. The eight modules are: photographic laboratory supervision, mechanical application skills, basic camera components, basic DC electricity, SLR and rangefinder camera, applied DC electricity, basic AC electricity, and applied AC electricity. *Version 2:* Lectures and laboratories in photographic equipment repair, including DC circuit fundamentals, electron theory, and hand tools usage. Instruction emphasizes aerial camera components and principles, motion picture systems, (CMY-5, CMY-2a, and KF-9) and still ground cameras (Graflex); multimeters and soldering techniques; twin lens reflex cameras (Mamiyaflex C-3), dual-curtain focal plane camera (KE-28), and mechanical Rapidyne shutters; and photographic laboratory film processing equipment, advanced aerial equipment, and Navy camera control systems repair procedures.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 8 semester hours in camera repair or photographic equipment repair and additional credit in electricity and electronics on the basis of demonstrated skills and/or institutional evaluation (see note above) (1/77). *Version 2:* In the vocational certificate category, 3 semester hours in electronics, and credit in photography on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, and credit in photography on the basis of institutional evaluation (4/74).

NV-1715-0161

Antenna Multicoupler AN/BRA-16 Combined Maintenance
(Antenna Group AN/BRA-16 Functional Checkout and Maintenance)

Course Number: A-101-0104; F-101-019.
Location: Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 3 weeks (90 hours).
Exhibit Dates: 11/72–Present.
Objectives: To provide the theory and skills to operate, maintain, troubleshoot and repair the AN/BRA-16 submarine antenna.
Instruction: Lectures and practical exercises in AN/BRA-16 antenna components operation, troubleshooting, and repair, including power supply, control panels, test equipment, maintenance charts, antenna circuitry, navigation output phasing, and mast preamplifier circuitry.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (9/77).

NV-1715-0162

AN/ASN-99 Projected Map Display Set Intermediate Maintenance

Course Number: C-102-3787.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 9/72–Present.
Objectives: To train qualified electronics technicians to operate, maintain, and troubleshoot the AN/ASN-99 projected map display set.
Instruction: Lectures and practical exercises in AN/ASN-99 projected map display set operation, maintenance, and troubleshooting, including servomechanisms and digital logic review, block-diagram analysis, maintenance procedures, and training on model equipment.
Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0163

Continuous Wave Illuminator (CWI) Common Core

Course Number: A-113-0070.
Location: Service School Command, Great Lakes, IL.
Length: 4 weeks (108 hours).
Exhibit Dates: 11/74–Present.
Objectives: To train selected personnel to perform circuit-level fault isolation and planned maintenance on a continuous-wave illuminator.
Instruction: Instruction includes use of instruments to isolate and repair the continuous-wave illuminator radar system; operating procedures; and regular maintenance.
Credit Recommendation: In the vocational certificate category, 2 semester hours in radar systems laboratory (9/77).

NV-1715-0164

E-1B AN/ASN-28 Central Gyro Reference System Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.
Length: 6 weeks (240 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train maintenance personnel with backgrounds in electronics to maintain, troubleshoot, and repair the AN/ASN-28 central gyro reference system.
Instruction: Lectures and practical exercises in central gyro reference system maintenance and repair, including in-depth functional and circuit-level descriptions of components, power systems, and control circuits; circuit card and card components troubleshooting; electronic control amplifier, including azimuth, pitch and roll servo signal processing, logic, relay, and power circuitry, and resolver excitation and accelerometer restoring amplifier; navigational computer amplifiers, relay control circuits, power supply, gyroscope assembly control, signal data converter, and environmental controls; and extensive alignment, troubleshooting and bench-testing experience.
Credit Recommendation: In the vocational certificate category, credit in electronics or aviation on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics or aviation on the basis of institutional evaluation (4/74).

NV-1715-0165

Advanced Transistor Theory

Course Number: F-000-023.
Location: Submarine School, Groton, CT.
Length: 3 weeks (90 hours).
Exhibit Dates: 2/68–Present.
Objectives: To train electronics technicians to operate, troubleshoot, and repair semiconductor devices.
Instruction: Lectures and laboratories in transistor and circuit theory; energy diagrams; physics and chemistry of crystals; transistor amplification and power gain; contruction and basic principles of Zeners, thermistors, and photo and tunnel diodes; AC and DC circuits review, including network theorems and mesh equation solutions using determinants; circuit analysis of CE, CB, and CC amplifier configurations using graphical and small signal, h-parameter equivalent circuits; interstage coupling methods, including gain, frequency response, and feedback circuits; transistor applications in digital circuits, high-frequency equivalent circuits, and FET properties; bias equations, stability, and noise design considerations; and unijunction transistors and SCR properties.
Credit Recommendation: In the vocational certificate category, 5 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, 2 semester hours in electronic engineering on the basis of institutional evaluation (4/74).

NV-1715-0166

Marine Air Traffic Control Unit Maintenance Management, Class C

Course Number: Not available.
Location: Air Technical Training Center, Glynco, GA.
Length: 3 weeks (120 hours).
Exhibit Dates: 7/71–Present.
Objectives: To train officer and enlisted personnel to supervise the maintenance and repair of air traffic control systems.
Instruction: Lectures on organization and functions of air traffic control units and radar air traffic control centers; siting, survey, and flight inspection procedures familiarization; maintenance publications familiarization; supply control and materials management familiarization; financial management and maintenance funds administration; and supervision of installation, maintenance, and repair of air traffic control radar, navigational aids, instrument landing, and communications systems.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0167

Intermediate Aviation Antisubmarine Warfare (AASW) Technician, Class B

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 34 weeks (1360 hours).

Exhibit Dates: 1/63–Present.

Objectives: To provide aviation antisubmarine warfare technicians with supplemental training in electronics theory and antisubmarine warfare equipment maintenance and repair.

Instruction: Lectures and practical experience in mathematics through trigonometry; electronics, including AC and DC fundamentals, tubes, transistors, power supplies, voltage regulators, video and magnetic amplifiers, oscillators, servomechanisms, mixing and frequency conversion; and analog and digital computer principles.

Credit Recommendation: In the vocational certificate category, 20 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, 5 semester hours in mathematics, 5 in physics, 5 in engineering electronics (12/68).

NV-1715-0168

Electronics Technician, Class C, SSBN NAVDAC FBM Tender Navigation Maintenance

Course Number: A-193-0039.

Location: Guided Missiles School, Dam Neck, VA.

Length: 6 weeks (210 hours).

Exhibit Dates: 11/72–Present.

Objectives: To provide electronics technicians with supplemental training in ballistic-missile submarine systems maintenance and repair.

Instruction: Laboratory in calibration, testing, and repair of ballistic missile submarine systems equipment, including SDC test systems, servo amplifier, synchro/resolver, and NAVDAC test sets, and NAVDAC magnetic drum loader operation, maintenance, troubleshooting, and repair; advanced soldering and wire-wrapping techniques; and ancillary commercial test equipments, including oscilloscope, signal generator, electronic counter, differential voltmeter, megohmeter, ratio transformer, RMS voltmeter, and electronic voltmeter.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0169

Electronics Specialized Training

Course Number: A-100-0031.

Location: Amphibious School Coronado, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train electronics technicians to operate, maintain, and repair radio, radar, and cryptographic equipment.

Instruction: Lectures include radar, SSB transmission, radio frequency interference, and teletype review; waterproofing equipment usage; antenna theory and wave propagation review. Emphasis is on circuit analysis, operation, and preventive maintenance procedures for specific radio, radar, and cryptographic equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0170

Avionics Officers, Class O

Course Number: C-4B-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: 40 weeks (1600 hours).

Exhibit Dates: *Version 1:* 9/71–Present. *Version 2:* 11/69–8/71. *Version 3:* 1/69–10/69. *Version 4:* 9/68–12/68.

Objectives: To train officers to be avionics officers.

Instruction: Lectures and practical exercises in algebra, trigonometry, differential and integral calculus, and differential equations; calculus-based physics, both traditional and modern; AC and DC circuits, circuit analysis, measurements and standards, electromagnetic wave theory, microwave devices and principles; and digital and analog computers.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 9 semester hours in mathematics, 6 in physics, 3 in maintenance management, and 14 in engineering electronics (6/74). *Version 2:* In the upper-division baccalaureate category, 4 semester hours in mathematics, 3 in physics, 2 in maintenance management, and 12 in engineering electronics (12/68). *Version 3:* In the upper-division baccalaureate category, 4 semester hours in mathematics, 3 in physics, 2 in maintenance management, and 14 in engineering electronics (12/68). *Version 4:* In the upper-division baccalaureate category, 4 semester hours in mathematics, 3 in physics, 2 in maintenance management, and 15 in engineering electronics (12/68).

NV-1715-0171

Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician)

Course Number: A-140-0010.

Location: Defense Atomic Support Agency, Albuquerque, NM.

Length: 12 weeks (472 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train electronics technicians to operate, maintain, and calibrate air and surface nuclear weapons test equipment.

Instruction: Lectures and practical exercises in electrical and electronic fundamentals, and tester maintenance and calibration, including circuit symbols and diagrams, repair procedures, commercial test equipment, performance tests, basic metrology, electrical indicating meters and multimeters, electronic voltmeters, pressure concepts and pressure gauge theory and specifications, and torque tools and testers. Electrical and electronic fundamentals are reviewed extensively. Emphasis throughout the remainder of the course is on operation and maintenance of specific test sets.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics, and additional credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0172

P-3 AN/APA-125A Indicator Intermediate Maintenance (P-3 AN/APA-125A Indicator Maintenance, No. 48)

Course Number: C-102-3535.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (104 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel with a knowledge of electronics and transistor theory to operate, calibrate, align, and maintain an aircraft radar indicator display.

Instruction: Lectures and practical exercises in theory, maintenance, and operation of the AN/APA-125A radar indicator, including low- and high-voltage power supplies, range gate generators, multivibrators, video amplifiers and mixers, indicator control circuits, sweep circuits, and servo systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0173

Interior Communications (IC), Class A, Part II (Interior Communications Equipment)

Course Number: A-623-0011.

Location: IC Electricians, Class A School, Great Lakes, IL; IC Electricians, Class A School, San Diego, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 12/57–12/68.

Objectives: To provide enlisted personnel with a basic understanding of electricity and electronic principles.

Instruction: Lectures and laboratories in basic concepts of electricity, including circuit diagrams, symbols, familiarization with cables, resistors, capacitors, inductors, tubes and transformers; use of electrician's hand tools and soldering techniques; construction of simple circuits using bells and push buttons; basic electrical metering equipment, principles of vacuum tube amplifiers, RC coupling, frequency response, ideal transformer coupling, push-pull amplifier, and power amplifiers.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electricity or electrical laboratory on the basis of institutional evaluation; in the lower-division baccalaureate/associate degree category, credit in electricity or electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0174

AN/AWM-55(V) Armament Station Control Unit Test Set Intermediate Maintenance

Course Number: C-198-3781.

Location: Air Mantenance Training Detachment, Lemoore, CA; Air Mantenance Training Detachment, Cecil Field, FL.

Length: 5 weeks (176 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train fleet maintenance personnel to operate, maintain, and repair

AN/AWM-55(V) armament station control unit test sets.

Instruction: Lectures and practical exercises in armament station control test sets, test set peculiarities, and fault control and fault data display.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0175

AN/SRN-15 TACAN Distance Azimuth Measuring Equipment (DAME) Maintenance (Electronics Technician, Class C1)

Course Number: A-102-0124.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 3 weeks (90 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train electronics technicians to operate, align, and repair AN/SRN-15 TACAN azimuth-measuring equipment.

Instruction: Lectures and laboratories in circuit analysis and block diagrams of receivers and transmitters, logic sections, RF and control sections, power supplies and antennas; and utilization of test equipment for troubleshooting and repairing the specified equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (11/77); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (11/77).

NV-1715-0176

RA-5C Semi-Automatic Test Equipment, Programmer, System Analyzer and Countermeasures Test Bench AN/ULM-1 Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 12/70–Present.

Objectives: To train maintenance personnel who have backgrounds in advanced electronics to operate, maintain, and repair RA-5C aircraft electronics system semiautomatic test equipment.

Instruction: Lectures in semiautomatic test equipment, programmer, and system analyzer, and countermeasure test bench operation, maintenance, and repair, including equipment introduction, control panel, power distribution, tape programmer, self-test procedures, signal relay assembly, decoder and matrix circuitry, tape reader monitor logic, adapter control and programming unit control signal generation, and various testing and maintenance routines and procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0177

A-6 Ship and Shore Inertial Platform Test Station Intermediate Maintenance

Course Number: C-102-3762.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train experienced electronics maintenance personnel to maintain and repair the platform test station.

Instruction: Lectures in accelerometer theory, assembly, and operation; Litton gyroscope construction and operation; amplifiers, modulators, and demodulators associated with azimuth theory of operation and power sources; elevation and roll test loops; four-gimbal platform operation; and test station overall operation and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0178

AN/ASQ-10 Magnetic Anomaly Detector Intermediate Maintenance

(AN/ASQ-10A Magnetic Anomaly Detecting Systems Intermediate Maintenance)

(P-3 AN/ASQ-10A Magnetic Anomaly Detecting Systems Maintenance, No. 42)

Course Number: C-102-3059.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (80–104 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain, calibrate, align, troubleshoot, and repair magnetic anomaly–detecting systems.

Instruction: Lectures in magnetic anomaly detector block diagrams, theory of operation, maintenance, calibration, alignment, troubleshooting and repair; and subsystems maintenance, including power supplies, detecting head, magnetometer oscillator and amplifier, band-pass and pen amplifier, test circuits, and error voltage controls.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0179

Gun Maintenance 5'/54 Caliber Rapid Fire Mk 42

Course Number: J-041-0123; J-113-123.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train gunnery personnel to operate and maintain the 5'/54 (RF) gun mount.

Instruction: Lectures and practical exercises in operation of 5'/54 (RF) gun mount, safety precautions, gun loading system tests and adjustments, corrective and preventive maintenance, and troubleshooting techniques.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0180

5'/54 Gun Mount Mk 42 Mod 7/9 Differences

Course Number: A-113-0028.

Location: Service School Command, Great Lakes, IL.

Length: 6 weeks (170 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train gunner's mates to maintain, adjust, and operate 5'/54 gun mounts.

Instruction: Lectures and practical exercises in system control circuits, lower accumulation systems, loaders and lower hoists, upper-gun loading systems, fuze setters, train and elevation power drives, firing circuits, and gun mount controls.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0181

F-8 Armament System Organizational Maintenance

Course Number: C-646-3851; C-646-12.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/69–Present.

Objectives: To train fleet maintenance personnel to operate and maintain the F-8H/J armament system.

Instruction: Lectures and practical exercises in the maintenance and testing of the F-8H/J aircraft armament system, including instruction in system components, the gunnery system, fuselage stores system, wing pylon stores system and associated equipment, corrosion control and radiation hazards.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0182

Electronics Technician, Class C, FBM Tender Navigation Maintenance

Course Number: A-193-0038.

Location: Guided Missiles School, Dam Neck, VA.

Length: 7 weeks (210 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train electronics technicians to maintain and repair the submarine central navigation computer, the digital module test set, and the gear train test set.

Instruction: Lectures and practical exercises in the maintenance of the central navigation computer, the digital module test set, and the gear train test set, including test equipment procedures, calibration and fault analysis, computer logic, circuit analysis, analog/digital conversion, and magnetic tape storage units maintenance.

Credit Recommendation: In the vocational certificate category, 4 semester hours in digital computers, 2 in digital computer laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital computers, 1 in digital computer laboratory (3/74).

NV-1715-0183

F-8 Electrical, Instruments and Stabilization Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/69–Present.

Objectives: To train electrical maintenance personnel to maintain selected aircraft instruments and electrical and flight stabilization systems.

Instruction: Lectures and practical exercises in the maintenance of the F8A/J, including systems components and test equipment, electricity fundamentals, generator systems, power distribution, circuit analysis, fuel systems, and stabilization.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity, 2 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity, 1 in electrical laboratory (3/74).

NV-1715-0184

KY-532A/KY-533A IFF Transponder Intermediate Maintenance

Course Number: C-102-3078.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train maintenance personnel to test, repair, and maintain the KY-532A/KY-533A IFF transponder at the intermediate level.

Instruction: Lectures and practical exercises in IFF transponder repair, including theory, components, various modes of operation, and testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0185

Fire Control Technician, Class B

Course Number: A-113-0015.

Location: Service Schools Command, Great Lakes, IL.

Length: 29 weeks (870 hours).

Exhibit Dates: 2/68–10/73.

Objectives: To train senior fire control technicians to operate and maintain complex weapons guidance and control systems.

Instruction: Lectures and practical exercises in the maintenance of complex weapons guidance and control systems, including mathematics at the college algebra level, DC and AC circuits, basic electronic circuits, including vacuum tubes and transistors, communication circuits, industrial or control circuits, pulse and digital circuits, instrumentation, magnetic amplifiers, synchros, and alignment and test equipment.

Credit Recommendation: In the vocational certificate category, certificate in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68).

NV-1715-0186

Electronics Technician, Class C, Microwave Fundamentals

Course Number: Not available.

Location: Electronics Technician, Class C School, Treasure Island, CA.

Length: 4 weeks (133 hours).

Exhibit Dates: 3/63–12/68.

Objectives: To train electronics technicians to maintain electronic equipment and systems utilizing microwave components and devices.

Instruction: Lectures and practical exercises in the maintenance of electronics equipment and systems using microwave components and devices, including basic transmission line theory, use of the Smith chart, transmission line measurements, microwave amplifiers and oscillators, antennas and antenna systems, measurement methods and test equipment, and circuit components.

Credit Recommendation: In the vocational certificate category, 4 semester hours in microwaves (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in microwave laboratory, and credit in microwaves on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in microwave measurements laboratory on the basis of institutional evaluation (3/74).

NV-1715-0187

AN/ALQ-51A Countermeasures Internal Set Maintenance

Course Number: C-102-225.

Location: Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/67–Present.

Objectives: To train fleet maintenance personnel to operate, maintain, and repair a specific countermeasures system at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/ALQ-51A countermeasures system, including circuitry, components, assembly, power supply, and system checks and troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications (3/74).

NV-1715-0188

AN/ARC-131 Receiver Transmitter Intermediate Maintenance

Course Number: C-102-3016.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/69–Present.

Objectives: To train maintenance personnel to maintain, repair, and test the AN/ARC-131 receiver-transmitter at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance and repair of the AN/ARC-131 receiver-transmitter, including a brief introduction to FM systems, circuitry, block diagrams, amplifiers, and operation of test equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic communications laboratory (3/74).

NV-1715-0189

Closed Circuit TV Maintenance, Class C1

Course Number: A-198-0020; A-198-020.

Location: Service School Command, Great Lakes, IL.

Length: *Version 1:* 18 weeks (636 hours). *Version 2:* 19 weeks (570 hours).

Exhibit Dates: *Version 1:* 10/75–Present. *Version 2:* 12/66–9/75.

Objectives: To train communications electricians to operate, maintain, and repair closed-circuit television and pilot-LSO landing aid television systems.

Instruction: Lectures and practical exercises in the maintenance and repair of black and white and color closed-circuit television and pilot-LSO landing aid television systems, including circuit inputs, outputs, and changes of wave shapes; receiver fundamentals; cameras; video tape recorders; and inspection, calibration and testing of television systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in TV systems and 5 in TV systems laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in TV systems (9/77). *Version 2:* In the vocational certificate category, 10 semester hours in electronic communications, 5 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications, 2 in electronic communications laboratory (3/74); in the upper-division baccalaureate category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0190

E-2A AN/ARC-80 Radio Set Intermediate Maintenance

(E-2A Radio Set AN/ARC-80 Intermediate Maintenance)

Course Number: C-150-3477.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4–6 weeks (160–240 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train fleet maintenance personnel to maintain the E-2A AN/ARC-80 SSB transmitter and receiver and associated test equipment.

Instruction: Lectures and practical exercises in SSB transmitter and receiver circuit analysis; operating principles; section theory; radio frequency amplifier, antenna coupler, and trailing-wire antenna units operation and maintenance; amplifier control; high-voltage circuits; control indicator; set control operation and maintenance; and AN/ASM 228 test bench and test procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 1 in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (3/74).

NV-1715-0191

AN/AQH-1 Recorder/Reproducer Intermediate Maintenance

Course Number: C-102-3534.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train intermediate maintenance personnel to operate, maintain, and modify the AN/AQH-1 recorder/playback device.

Instruction: Lectures and practical exercises in basic tape recorder principles; head circuits; motor and control circuits; power supply, FM, and direct-channel theory of operation; and precision plate assembly maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (3/74).

NV-1715-0192

EA-6B Course Attitude Data Transmitter Intermediate Maintenance
(T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B))

Course Number: C-602-3775.
Location: Air Maintenance Training Detachment, Whidbey Island, WA.
Length: 2 weeks (72 hours).
Exhibit Dates: 12/72–Present.
Objectives: To train maintenance personnel to maintain and repair the EA-6B attitude data transmitter.
Instruction: Lectures and practical exercises in EA-6B attitude data transmitter maintenance and repair, including system equipment and analysis, calibration, alignment, testing, and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (3/74).

NV-1715-0193

AN/URN-20 TACAN Maintenance (Electronics Technician, Class C1)
(Electronics Technician AN/URN-20 Radio Set Class C Maintenance)

Course Number: A-102-0034; A-102-034; A-102-035.
Location: Service Schools Command, San Diego, CA; Fleet Training Center, Norfolk, VA.
Length: 5 weeks (150 hours).
Exhibit Dates: 3/69–Present.
Objectives: To train enlisted personnel to operate and maintain the AN/URN-20 radio receiver-transmitter.
Instruction: Lectures and practical exercises in AN/URN-20 radio receiver-transmitter familiarization and operation, and in technical maintenance, including receiver block diagram, test equipment operation, and logical troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications systems and 2 in electronics laboratory (11/77).

NV-1715-0194

Electronics Technician, Class C, AN/FGC-60; AN/FTA-15 Multichannel Voice Frequency Telegraph Terminal Equipment

Course Number: A-101-0040.
Location: Service School Command, Great Lakes, IL.
Length: 4 weeks (120 hours).
Exhibit Dates: 11/72–7/74.
Objectives: To train enlisted personnel who have completed the electronic technician shipboard course to maintain a specific multiplex voice-telegraph system.
Instruction: Lectures and practical exercises in communications system and terminal fundamentals, transmitter and receiver fundamentals, system operation, and telephone and telegraph terminal devices maintenance.
Credit Recommendation: In the vocational certificate category, 3 semester hours in telephony, 1 in telephony laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in telephony, 1 in telephony laboratory (3/74).

NV-1715-0195

E-1B ARC-97 Radio Repeater System Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.
Length: 2 weeks (80 hours).
Exhibit Dates: 10/72–Present.
Objectives: To train maintenance personnel to operate and maintain the E-1B ARC-97 radio repeater set.
Instruction: Lectures and practical exercises in E-1B ARC-97 radio repeater operation and maintenance, including transistors and special-purpose tubes; component numbering system; theory of operation; and bench check, alignment, and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 1 in electronic communications laboratory (3/74).

NV-1715-0196

AN/ALQ Countermeasures Set Intermediate Maintenance
(AN/ALQ-81/100 Countermeasures Set Maintenance)

Course Number: C-102-3074.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Miramar, CA.
Length: 6 weeks (240 hours).
Exhibit Dates: 8/67–Present.
Objectives: To train fleet maintenance personnel to operate, modify, and troubleshoot the AN/ALQ-100 and AN/ALQ-81/100 electronic countermeasures systems.
Instruction: Lectures and practical exercises in AN/ALQ-100 and AN/ALQ-81/100 countermeasures set operation, modification, and troubleshooting, including low-band block diagram, video assembly, modulator, and program assembly; high-band block diagram, video control, modulator, driver SMT assembly, and destruct unit and hydraulic package; systems power control and power supplies; and systems maintenance and testing procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic communications, 1 in electronic communications laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electronic communications (3/74).

NV-1715-0197

TACAN Maintenance, Class C1
(Electronics Technician, Class C, TACAN Maintenance)

Course Number: A-102-0044; A-102-0045.
Location: Electronics Technician, Class C School, Treasure Island, CA; Electronics Technician, Class C School, Great Lakes, IL.
Length: 7 weeks (210 hours).
Exhibit Dates: 3/63–Present.
Objectives: To train electronics technicians to operate and maintain TACAN navigation equipment.
Instruction: Lectures and practical exercises in TACAN navigation system equipment components circuit analysis, including beacon electronics, test equipment, antennas, control circuits, and radio frequency monitors; and 3-M system maintenance and material management.
Credit Recommendation: In the vocational certificate category, 3 semester hours in microwave and pulse electronics and 1 in microwave and pulse electronics laboratory (9/77).

NV-1715-0198

EA-6A AN/ALQ-76/86 ECM Systems Organizational Maintenance

Course Number: C-102-3942.
Location: Air Maintenance Training Detachment, Cherry Point, NC.
Length: 5 weeks (200 hours).
Exhibit Dates: 3/73–Present.
Objectives: To train maintenance personnel to maintain a specific ECM system.
Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ALQ-76/86 ECM system, including components, troubleshooting, and use of associated test equipment.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0199

AN/SPS-T3 Radar Trainer Class C Maintenance

Course Number: A-104-0048; A-104-0049.
Location: Electronics Technician, Class C School, Norfolk, VA; Electronics Technician, Class C School, San Diego, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 6/67–Present.
Objectives: To train electronics technicians to operate and maintain specific radar trainer systems.
Instruction: Lectures and practical exercises in the maintenance and operation of the AN/SPS-T3 radar trainer, including use of associated test equipment, components of the system, signal simulation, and system troubleshooting.
Credit Recommendation: No credit because of the limited technical nature of the course (4/74).

NV-1715-0200

A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance

Course Number: C-102-3785.
Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.
Length: 6 weeks (240 hours).
Exhibit Dates: 8/71–Present.
Objectives: To train enlisted personnel to maintain and operate a specific radar system.
Instruction: Lectures and practical exercises in the maintenance of the AN/APN-190 Doppler radar navigation system, including block-diagram analysis and receiver, transmitter, antenna, and control indicator analysis.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0201

Electronics Technician, Class C, AN/SRN-12 Omega Receiving Set Maintenance

Course Number: A-102-0077; A-102-0086.

Location: Electronics Technician, Class C School, Norfolk, VA; Electronics Technician, Class C School, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 5/71-3/74.

Objectives: To train electronics technicians to operate and maintain the AN/SRN-12 Omega receiving set and associated test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SRN-12 Omega receiving set (a long-range surface navigation aid) and test equipment, including components, circuitry, and preventive maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0202

SINS Mk 2 Mod 6 Calibration

Course Number: A-193-0300.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 3/77-Present.

Objectives: To provide an advanced knowledge of the theory of operation and calibration of the specified navigation system.

Instruction: Lectures and laboratories in monitor gyro mechanization, monitor gyro error analysis, use of current procedures for performing calibration and evaluation of data; VM bias, DEACON, PAD/PAP/HAP calibrations are performed on an operational system.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (7/78).

NV-1715-0203

Fire Control System Technician Mk 88 Conversion (Mod 0 to Mod 1)

Course Number: A-121-0178.

Location: Guided Missiles School, Dam Neck, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train Mk 84 fire control system technicians to operate and maintain a specific fire control system and associated nontactical equipment.

Instruction: Lectures and practical exercises in the theory, operation, and maintenance of the Mk 88 fire control system (Mod 1), including changes introduced from the Mod 0 system; digital and analog circuitry associated with the digital read-in and control and display subsystems, and the digital fire control test equipment; and rate compensation electronics.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0204

F-8 AN/ARN-52 TACAN Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train maintenance personnel to maintain and operate the AN/ARN-52 TACAN system at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/ARN-52 TACAN system, including specialized treatment of the specific equipment components and circuitry.

Credit Recommendation: *Version X:* edit is not recommended because of the limited technical nature of the course (3/74). *All Versions:* 0 0

NV-1715-0205

Fire Control System Technician Mk 88 Mod 1 Tender Maintenance

Course Number: A-121-0190.

Location: Guided Missiles School, Dam Neck, VA.

Length: 14 weeks (220 hours).

Exhibit Dates: 1/71-Present.

Objectives: To train enlisted personnel to operate and maintain the electromechanical teleprinter, the computer tape reader, and the optical alignment group of the Fleet Ballistic Missile Weapons System.

Instruction: Lectures and practical exercises in the maintenance of the electromechanical teleprinter, the computer tape reader, and the optical alignment group, including computer logic and instruction in theory, calibration, components, optical principles, electro-servo components, and diagnosis of malfunctions.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computers (3/74); in the lower-division baccalaureate/associate degree category, credit in computer laboratory on the basis of institutional evaluation (3/74).

NV-1715-0206

F8 AN/APQ-83A Radar Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train enlisted personnel to operate and maintain the AN/APQ-83A radar set and associated equipment.

Instruction: Lectures and practical exercises in the maintenance of the AN/APQ-83A radar set, including amplifiers, circuits, transmitters and power supply, range tracker, antennas, systems and test set alignment, and radiation hazards. Areas are covered in general terms with relation to the specified equipment.

Credit Recommendation: *Version X:* edit is not recommended because of the limited technical nature of the course (3/74). *All Versions:* 0 3/74

NV-1715-0207

Gun Fire Control System (GFCS) Mk 56 Maintenance

Course Number: J-113-0116; J-113-1161; J-113-1162; K-113-2072.

Location: Fleet Combat Direction Systems Training Center, Dam Neck, VA; Fleet Combat Direction Systems Training Center, Newport, RI; Fleet Combat Direction Systems Training Center, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train enlisted personnel to maintain a shipboard ground fire control system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 56 ground fire control system, including use of PMS and MDCS, power distribution, AC and DC, power and mode control switching, power supplies, director control circuits, specific radar and rate-computation circuits, system servo loops, and computer power supply and maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0208

Gun Fire Control System (GFCS) Mk 68 Mod 4 Maintenance

Course Number: K-113-2075.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train fire control technicians to maintain a shipboard ground fire control system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 68 ground fire system, including analysis of the system and subsystems, power distribution and drive, control switching, free gyroscopes, circuits, electromechanical computing elements, information flow, tests, and test analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0209

F/RF-4B Air Data Computer Set Maintenance

Course Number: C-602-3834; C-602-181.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train maintenance personnel to test and maintain the F/RF-4B aircraft's air data computer.

Instruction: Lectures and practical exercises in the maintenance of the F/RF-4B aircraft air data computer, including computer compensator module operation and organizational level test equipment and procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0210

1. Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar)
2. Gun Fire Control System (GFCS) (Less Radar) Operation and Maintenance

Course Number: *Version 1:* K-113-2071. *Version 2:* K-113-180.

Location: *All Versions:* Fleet Training Center, San Diego, CA. *Version 2:* Fleet Training Group, Pearl Harbor, HI.

Length: *Version 1:* 2 weeks (60 hours). *Version 2:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 11/72-Present. *Version 2:* 11/65-10/72.

Objectives: To train enlisted personnel to operate and maintain the Mk-37 GFCS ground fire control system.

Instruction: Lectures and training in Mk-37 GFCS ground fire control system operation and maintenance, including components familiarization, mechanical and electrical systems theory of operation, alignment procedures and system checks, and system computer components operation and adjustment procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0211

Fire Control System (FCS)
Technician Mk 80
(Fire Control System Technician Mk 80 Replacement)

Course Number: A-121-0244; A-121-0013.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Guided Missiles School, Dam Neck, VA.

Length: 20–27 weeks (630–945 hours).

Exhibit Dates: 1/61–Present.

Objectives: To train enlisted personnel to operate and maintain the Mk 80 fire control system.

Instruction: Lectures and practical exercises in the functional operation to block diagram level of a fleet ballistic missile fire control system on the 598 or 608 class SSBN submarine. Topics include meters, oscilloscope and hand tools to perform routine preventive maintenance, equipment alignment and repair, safety procedures, troubleshooting techniques to recognize and interpret malfunctions, basic corrective maintenance to the subsystem level following documented procedures for systematic fault isolation, and the removal and replacement of faulty modules.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (9/77).

NV-1715-0212

Fire Control Technician Class C,
Target Designation System
(TDS) Mk 5

Course Number: A-121-0095; A-121-095.

Location: *Version 1:* Service Schools Command, Great Lakes, IL. *All Versions:* Service Schools Command, Bainbridge, MD.

Length: *Version 1:* 9–10 weeks (255–300 hours). *Version 2:* 12 weeks (360 hours).

Exhibit Dates: *Version 1:* 4/67–12/73. *Version 2:* 2/65–3/67.

Objectives: To train fire control technicians to operate and maintain the Mk 5 target designation system at an advanced level.

Instruction: Lectures and practical exercises in the maintenance of the Mk 5 designation indicator, including instruction in electronics and circuitry used in radar and television, mathematical analysis of circuits; theory, construction, and operation of the designation indicator and associated equipment; testing and calibration; alignment data computation; and adjustment and repair.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic communications laboratory (6/75). *Version 2:* In the vocational certificate category, 2 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0213

Fire Control Technician Class C,
Target Designation System Mk 6

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 6 weeks (180 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train fire control technicians to operate, maintain, and repair the Mk 6 target designation system.

Instruction: Lectures and practical exercises in the maintenance of a specific target designation system, including instruction in electronics and circuitry used in radar and television, mathematical analysis of circuits; theory, construction, and operation of the designation indicator and associated equipment; testing and calibration, alignment data computation, and adjustment and repair.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0214

F-8 AN/APQ-83B Radar Intermediate
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/70–Present.

Objectives: To train enlisted personnel with a knowledge of transistors to maintain and repair the AN/APQ-83B radar system at an intermediate level.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/APQ-83B radar set group, including theory of operation of the power supply circuit; receiver and transmitter circuits; use of oscilloscope, range tracker, antenna, and various computers; and alignment and troubleshooting of the radar and associated equipment using pertinent test equipment. Course is specialized.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0215

Advanced Airborne ELINT
Evaluator

Course Number: E-2D-074.

Location: Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train officers to evaluate, locate, and analyze threat and non-threat radar emitters and to apply the concepts of electronic surveillance measures (ESM).

Instruction: Lectures and practical exercises in concepts, intercept procedures, and applications of electronic surveillance systems, including review of electronic warfare principles, review of radar and ESM equipment fundamentals, aircraft and equipment capabilities and limitations, methods and procedures of data collection, and the evaluation of mission results.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0216

Fire Control Technician Class C, Gun
Fire Control System Mk 56 and
Target Designation System Mk 5

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL; Service Schools Command, Bainbridge, MD.

Length: 20 weeks (600 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train fire control technicians to operate, maintain, and repair the Mk 56 gun fire control system and the Mk 5 target designation system.

Instruction: Lectures and practical exercises in the operation and maintenance of the integrated Mk 56 gun fire control system and the Mk 5 target designation system, including theory, components, and operation of the specific equipment; operation of gyroscopes; operation of analog computers; computation of alignment data; and mathematical analysis of electronic circuits for power supplies, radar, and antennas.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical/electronics laboratory on the basis of institutional evaluation (12/68).

NV-1715-0217

Ground Controlled Approach
Electronics Maintenance
(Radar Set AN/FPN-36), Class C

Course Number: C-103-2016.

Location: Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 2–3 weeks (100–120 hours). *Version 2:* 4 weeks (160 hours).

Exhibit Dates: *Version 1:* 3/74–Present. *Version 2:* 6/71–2/74.

Objectives: To train electronics technicians to operate and maintain an AN/FPN-36 radar installation.

Instruction: Lectures and practical exercises in the operation and maintenance of a complete AN/FPN-36 radar installation, including the antenna system, transmitter and receiver group, remoting equipment, indicator group and quadradar siting, control systems, amplifiers, power requirements, generators, radar positioning and runway survey, and testing and adjustment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electrical testing and maintenance (6/75). *Version 2:* In the vocational certificate category, 3 semester hours in circuit analysis and troubleshooting (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in circuit analysis and troubleshooting (3/74).

NV-1715-0218

1. Mk 56 Gun Fire Control System
(GFCS) Maintenance, Class C1
2. Fire Control Technician Class C,
Gun Fire Control System
(GFCS) Mk 56

Course Number: *All Versions:* A-113-0014. *Version 2:* A-113-0025.

Location: Service School Command, Bainbridge, MD; Service School Command, Great Lakes, IL.

Length: *Version 1:* 18 weeks (540 hours). *Version 2:* 12 weeks (236–360 hours).

Exhibit Dates: *Version 1:* 5/77–Present. *Version 2:* 2/68–4/77.

Objectives: To train fire control technicians to operate, maintain, and repair the Mk 56 gun fire control systems equipment.

Instruction: *All Versions:* Lectures and practical exercises in the maintenance of the Mk 56 gun fire control system and associated equipment, including components, gyroscopes; testing, calibration, adjustment, and repair of systems equipment; and mechanical, electrical, electronic, and electromechanical computing devices and circuitry for associated system computers. *Version 2:*

Topics include mathematical analysis of circuitry.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronic systems maintenance (9/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (9/77). *Version 2:* In the vocational certificate category, 6 semester hours in electronic systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in circuitry and 1 in electrical laboratory (6/75).

NV-1715-0219

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 68

Course Number: A-113-0016.

Location: Service Schools Command, Great Lakes, IL.

Length: 21-23 weeks (690-725 hours).

Exhibit Dates: 1/65-Present.

Objectives: To train fire control technicians to operate, maintain, and repair the Mk 68 gun fire control system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 68 gun fire control system and associated equipment, including mathematical analysis of electronic circuits for power supplies; radars; antennas; gyroscopic principles; calibration; casualty analysis and repair; and components.

Credit Recommendation: In the vocational certificate category, 3 semester hours in analog computers and 3 in radar (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in analog computers and 1 in radar (6/75).

NV-1715-0220

Gun Fire Control System (GFCS) Mk68 Maintenance

Course Number: J-113-0105; J-113-1052.

Location: Fleet Combat Direction Systems Training Center, Atlantic, Dam Neck, VA.

Length: 4 weeks (140 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train fire control technicians to operate and maintain the Mk 68 gun fire control system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 68 gun fire control system, including components, preventive maintenance, test equipment, adjustments, use of the system dynamic tester and error recorder, and operation of specific subsystems and associated equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0221

Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1

(Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5)

Course Number: A-113-0024; A-113-024; A-113-0036; A-113-036.

Location: Service School Command, Great Lakes, IL; Service School Command, Bainbridge, MD.

Length: 23-25 weeks (690-781 hours).

Exhibit Dates: 2/68-Present.

Objectives: To train fire control technicians to operate, maintain, and repair the integrated Mk 37 gun fire control system and the Mk 5 target designation system.

Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 37 gun fire control system and the Mk 5 target designation system, including components, testing and repair procedures, and theory of operation of director, radar, and computer equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar systems maintenance (9/77).

NV-1715-0222

RA-5C AN/AAS-21 Infrared Detecting Set Intermediate Maintenance

Course Number: C-102-3747.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 6 weeks (240 hours).

Exhibit Dates: 11/69-Present.

Objectives: To train enlisted personnel to operate and maintain the AN/AAS-21 infrared detecting set.

Instruction: Lectures and practical exercises in infrared fundamentals, Stefan-Boltzman law, IR receiver and recorder theory and design; video-synchronizer-spike detector circuits operation and purpose; recorder data flow, filters and optics circuits, self-test and power control circuits; receiver video-synchronization-filter circuits; recorder section design and theory of video and film speed circuits; and laboratory techniques for alignment and troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0223

RF-4B AN/APN-159 Radar Altimeter Maintenance

Course Number: C-102-3837; C-102-199.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/70-Present.

Objectives: To train maintenance personnel to service, maintain, and troubleshoot the AN/APN-159 radar altimeter system.

Instruction: Lectures and practical exercises in AN/APN-159 radar altimeter system theory of operation; frequency-generating circuits; receiving, computing, and special circuits; and maintenance, troubleshooting, bench check-out, trouble analysis, alignment, and safety precautions.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0224

RA-5C Electronic Reconnaissance Organizational Maintenance

Course Number: C-102-3743; C-102-294.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 2-3 weeks (80-120 hours).

Exhibit Dates: 4/69-Present.

Objectives: To train naval fleet maintenance personnel to analyze, maintain, and troubleshoot the AN/AAS-21 infrared detecting set, AN/APD-7 side-looking radar (SLR), and AN/AYA-1 signal data converter group systems.

Instruction: Lectures and practical exercises in infrared detecting set, side-looking radar, and signal data converter group systems analysis, maintenance, and troubleshooting, including signal data converter group, data converter, and data translator systems introduction; accessories and test equipment, video amplifiers, and optics system description; infrared detecting set, including infrared principles, major components, and operation and testing procedures; and side-looking radar set block-diagram analysis, antenna system, cooling and pressurization, fuel circuitry, and operation and testing procedures.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0225

RF-4B AN/AAS-18 Infrared Reconnaissance Mapping System Intermediate Maintenance

Course Number: C-100-3834.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/71-Present.

Objectives: To train maintenance personnel to maintain, service, and troubleshoot the AN/AAS-18 infrared reconnaissance mapping system.

Instruction: Lectures in infrared systems introduction; system functional block diagram; optical and cooler systems; self-test and correction circuits, and circuit analysis of video, sweep, and servo, and film drive circuits; and bench checks, alignment, and trouble analysis of infrared reconnaissance mapping system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (3/74).

NV-1715-0226

AN/ASB-1A Radar Sub-System Intermediate Maintenance

Course Number: C-111-3702.

Location: Air Maintenance Training Detachment, Alameda, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/73-Present.

Objectives: To train naval fleet maintenance personnel to maintain, troubleshoot, and repair the AN/ASB-1A radar subsystem.

Instruction: Lectures in radar system components, symbols, and specifications; radar presentations; gyroscope assembly; antenna; block analysis of tunable radar; transmitter timing, modulation, RF, and tuning; receiver section RF and AFC networks; IF and video circuits; servo control amplifiers and display circuits; power supply, antenna, and synchronizer circuits maintenance; and radar system preventive and corrective maintenance procedures.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0227

SH-3A/D AUTOMATIC NAVIGATION SYSTEM (AN/AYK-2) INTERMEDIATE MAINTENANCE
(SH-3 AN/AYK-2 Navigation System Intermediate Maintenance)

Course Number: C-102-3397.

Location: Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Ream Field, CA.

Length: 4 weeks (152-160 hours).

Exhibit Dates: 9/67-Present.

Objectives: To train naval maintenance personnel with backgrounds in electronics to operate, calibrate, test, align, and maintain the SH-3 (SH-3A/D) automatic navigation system.

Instruction: *All Versions:* Lectures and practical exercises in automatic navigation system introduction; AN/AYK-2 computer group theory and maintenance; DA-1768A display plotting board group, theory of operation and maintenance; and operation and maintenance procedures for memory and indicator groups. *Version 2:* Instruction includes synchro fundamentals review and computer inputs.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (3/74).

NV-1715-0228

RF-4B AN/ASN-46/56 NAVIGATIONAL COMPUTER AND INERTIAL NAVIGATION SYSTEM INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train maintenance personnel to troubleshoot, maintain, and repair AN/ASN-46/56 navigational computer and inertial navigation systems.

Instruction: Lectures and laboratories in ASN-46 systems and operating procedures; introduction to trigonometry and resolver theory; test bench procedures, system hookup, and component test procedures; theory of operation and purpose of navigational computers; platform test sets, gyro tests, and bias procedures; and theory of operation and purpose of inertial navigation systems.

Credit Recommendation: In the vocational certificate category, credit in electricity and electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity and electronics on the basis of institutional evaluation (3/74).

NV-1715-0229

TRANSCEIVER AN/URC-32 MAINTENANCE (ENLISTED)

Course Number: F-101-013.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 8/67-12/68.

Objectives: To train enlisted personnel to operate, maintain, and repair AN/URC-32 transceiver sets.

Instruction: Lectures and laboratories in an introduction to single-sideband theory; power supplies and distribution; functional block diagram of SSB transmit circuits, audio and control units, sideband generators, and power amplifiers; tuning and AM transmitting circuit analysis; CW transmit-and-receive mode of operation; FSK transmit-and-receive mode analysis; and transceiver malfunctions.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0230

CARRIER AIR TRAFFIC CONTROL CENTER EQUIPMENT MAINTENANCE AN/SPN-41

Course Number: C-103-2023.

Location: Air Technical Training Center, Glynco, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 6/72-Present.

Objectives: To train electronics technicians to operate and maintain the AN/SPN-41 radar transmitting set.

Instruction: Lectures and practical exercises in AN/SPN-41 radar transmitting set operation and maintenance, including system block analysis; power distribution; elevation stabilization; azimuth stabilization; solid-state devices; integrated circuits and logic symbols and circuits; elevation drive, coding, and transmitting; fault circuitry; azimuth drive, coding, and transmitting; RF and test set monitors; and system alignment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0231

SH-3A AN/AQS-10 SONAR INTERMEDIATE MAINTENANCE
(SH-3A AN/AQS-10 Sonar Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train maintenance personnel to service and maintain the AN/AQS-10 sonar and to understand its function and operation.

Instruction: Lectures and practical exercises in sonar fundamentals; AN/AQS-10 introduction; bench and line test equipment, including counters, oscilloscopes, and transducers; block-diagram and circuit analysis of transmitter, projector, converter, and AGE systems; power supply and distribution system operation; transmitting and receiving sections, including sweep generator, timing circuits, special-purpose cable, transducer, converter, IF and AGC amplifiers, and phase comparators; display section, including video and audio circuits, synchros and resolvers; electrostatic cathode ray tube operation; and cable control, calibration, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0232

SHIPS INERTIAL NAVIGATION SYSTEM (SINS) MK 2 MOD 6 CONTROL THEORY

Course Number: A-193-0262; F-193-086.

Location: Submarine Training Center, Charleston, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train navigation electronics technicians to operate and maintain the Mk 2 Mod 6 ships inertial navigation system (SINS).

Instruction: Lectures in the sequencing, development, and distribution of the Mk 2 Mod 6 SINS equipment power, and in the functional operation and detailed circuit analysis of data transmission loops, binnacle circuitry, temperature controls, mode selection circuitry, PAD/PAP mode control circuitry, diagnostic electronics, tape reader, gyro torquing electronics, and system alarm circuitry.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electricity and electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0233

1. AN/SPS-39A RADAR OPERATION AND MAINTENANCE (AN/SPS-39 RADAR MAINTENANCE)
2. AN/SPS-39 RADAR SET (AN/SPS-39A Radar Set)

Course Number: A-104-0103; A-104-098.

Location: Guided Missile School/Fleet Anti-Air Warfare Training Center, Dam Neck, VA/San Diego, CA.

Length: *Version 1:* 15-20 weeks (600-622 hours). *Version 2:* 20 weeks (600 hours).

Exhibit Dates: *Version 1:* 3/69-Present. *Version 2:* 1/68-2/69.

Objectives: To train enlisted personnel to operate and maintain the AN/SPS-39A radar system.

Instruction: Lectures and practical exercises in AN/SPS-39A radar system operation and detailed functional description, including power distribution, synchronization function, transmitter, receiver, antenna and antenna positioning, slant range converter, plan position indicator, range height indicator, and stabilization converter.

Credit Recommendation: *Version 1:* In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0234

Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-44

Course Number: C-103-2024.

Location: Air Technical Training Center, Glynco, GA.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/72–Present.

Objectives: To train electronics technicians to maintain and operate AN/SPN-44 radar sets.

Instruction: Lectures and practical exercises in introduction to radar sets, safety precautions, receivers/transmitters, power supplies and distribution, Doppler processors, servo systems, communications and indicators, recorders, performance monitors, and maintenance and troubleshooting procedures.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0235

AN/ASB-7 Radar Sub-System Intermediate Maintenance

Course Number: C-111-3701.

Location: Air Maintenance Training Detachment, Alameda, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 12/72–Present.

Objectives: To train fleet maintenance personnel to maintain AN/ASB-7 radar subsystems.

Instruction: Lectures and practical exercises in radar subsystem theory of operation and maintenance procedures, including circuit analysis, troubleshooting, and repair.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0236

Carrier Air Traffic Control Center Equipment Maintenance, Radar Set AN/SPN-43, Class C

Course Number: C-103-2014.

Location: Air Technical Training Center, Glynco, GA.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/69–Present.

Objectives: To train electronics technicians to operate and maintain AN/SPN-43 radar sets.

Instruction: Lectures and laboratories in transmitters/modulators, including control circuits, power supplies, timing generators, trigger shapers and modulators, sensor and AFC circuits, wave-guide systems, cooling systems; receiver circuits, including mixer and local oscillators, parametric amplifiers, AFC circuits, high-frequency amplifiers, IF filters, video amplifiers, and power supplies; antenna stabilization and train systems; and maintenance and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0237

SH-3A AN/APN-130 Doppler Radar Navigation Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to operate and maintain the APN-130 Doppler navigation radar as used in SH-3A helicopters.

Instruction: Lectures and practical exercises in familiarization with the APN-130 radar, including receiver-transmitter units, power supply, data converters, and maintenance and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0238

RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance

Course Number: C-100-3741.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/67–12/68.

Objectives: To train maintenance personnel to repair semiautomatic test equipment.

Instruction: Lectures and laboratories in operation of system analyzers; familiarization with control panels, power distribution and air conditioning, test procedures, signal relay assembly, test number readout, comparators, ADC comparison, counter timers, printer electronics, and test point monitors; and line maintenance, field repairs, tests, and adjustments on semiautomatic test equipment.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0239

Mk 68 Gun Director and AN/SPG-53F Radar Maintenance

Course Number: A-113-0072.

Location: Service School Command, Great Lakes, IL.

Length: 20 weeks (560 hours).

Exhibit Dates: 3/75–Present.

Objectives: To train students with prior electronics training to perform fault isolation and maintenance on specific radar equipment, using appropriate test sets.

Instruction: Instruction in the operation and maintenance of the Mk 68 gun fire control system and the AN/SPG-53F radar system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radar systems laboratory (9/77).

NV-1715-0240

RF-4B AN/ASQ-90 Airborne Data Annotation System Maintenance

Course Number: C-102-3835.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel to maintain and repair the AN/ASQ-90 airborne data annotation system.

Instruction: Lectures and practical exercises in a review of binary and logic symbols; operating procedures, block-diagram analysis, power supplies, multivibrators, servo systems, shaft position encoders, latch generators, D/A converters, electronic counters, data display indicators, parity generators, and retrace control as applied to the airborne data annotation system; and troubleshooting and maintenance procedures.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0241

SH-3 AN/ASA-13A Navigation System Intermediate Maintenance
(SH-3A AN/ASA-13A Navigation System Mantenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/69–Present.

Objectives: To train maintenance personnel to maintain, repair, and functionally test AN/ASA-13A navigation systems at the intermediate maintenance level.

Instruction: Lectures and practical exercises in SH-3 navigation systems; functional block diagrams; functional operation and maintenance of computer groups, plotter groups, and memory and indicator groups; and system test and adjustment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0242

SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 2 Mod 1
(SSBN NAVDAC Mk 2 Mod 4, SDC Mk 2 Mod 1)

Course Number: A-193-016.

Location: Guided Missiles School, Dam Neck, VA.

Length: 23 weeks (805 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train electronics technicians to operate, maintain, and repair navigation data assimilation computers, navigation control consoles, stabilization data computers, and optical star tracker periscopes.

Instruction: Lectures and practical exercises in celestial navigation; pneumatic, oil, and hydraulic systems; periscope optical systems; complex servomechanism theory; relay-controlled sequencing systems; optical monitoring and error determination techniques; general computer principles and techniques; circuit block-diagram analysis; fault isolation techniques; series, parallel, and analog input techniques; special-purpose, digital-to-analog output theory; serial digital output theory; and serial input/output and display devices.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0243

S-2D/E AN/AKT-19A Multi-Channel Jezebel Relay Intermediate Maintenance

Course Number: C-102-3611.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/70–Present.

Objectives: To train maintenance personnel to operate, maintain, troubleshoot, and align AN/AKT-19A multichannel Jezebel relay systems.

Instruction: Lectures and laboratories in multichannel Jezebel relay systems; circuit analysis of subassemblies, antenna couplers, control indicators, and multiplexer-transmitters; test and alignment procedures; and fault isolation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0244

S-2E AN/ARC-94 HF Receiver-Transmitter System Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To provide maintenance personnel with an overall knowledge of AN/ARC-94 high-frequency transceivers.

Instruction: Lectures and laboratories in theory of operation and troubleshooting of AM/audio amplifier modules, IF and RF translator modules, auto-tune systems, power amplifier modules, electronic control amplifiers, RF oscillators, frequency divider modules, frequency stabilizer modules, power supply, mode selectors, and chassis circuitry as applied to the AN/ARC-94 high-frequency transceiver.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0245

Guidance System, Mk 3 Mod 0, Operation and Maintenance

Course Number: F-121-061.

Location: Submarine Training Center, Charleston, SC.

Length: 4 weeks (160 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel to operate and maintain the Mk 3 Mod 0 guidance system.

Instruction: Lectures and practical exercises in organization, content, and use of Mk 3 Mod 0 guidance system technical documentation; signal interface between seven tactical subsystems; detailed functional description of each subsystem, including circuit analysis and logic flow; special tools and test equipment functional operation; and system maintenance procedures.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0246

RA-5C Electronic Reconnaissance Line Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to operate, maintain, and service the AN/APD-7 side-looking radar and the AN/ALQ-61 passive electronics countermeasures set.

Instruction: Lectures and practical exercises in line maintenance of AN/APD-7 side-looking radars; and in the repair of passive electronics countermeasures systems, including antenna, receiver, encoders, decoder, programmer, tape recorder, and power distribution systems.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0247

AN/ARN-81 Loran Intermediate Maintenance

(C-2A AN/ARN-81 Loran Intermediate Maintenance)

Course Number: C-102-3043.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Patuxent River, MD.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain and service AN/ARN-81 long-range (Loran) navigation systems.

Instruction: Lectures and laboratories in Loran system theory, timing circuits, display circuits, troubleshooting, and alignment.

Credit Recommendation: In the vocational certificate category, credit in electronics or electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0248

AN/APD-7 Side Looking Radar Intermediate Maintenance

(RA-5C AN/APD-7 Side Looking Radar (SLR) Intermediate Maintenance)

(RA-5C Side Looking Radar (SLR) AN/APD-7 (XN-1) Shop Maintenance)

Course Number: C-100-3747.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 5–6 weeks (200–240 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train fleet maintenance personnel to troubleshoot, repair, and maintain AN/APD-7 side-looking radar systems.

Instruction: Lectures and practical exercises in operation and maintenance of transmitters, receivers, recorder systems, and associated systems and circuitry of the side-looking radar system; and use of dual-trace oscilloscopes, multimeters, and associated test equipment.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0249

AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System

Course Number: A-101-0063.

Location: *Version 1:* Service School Command, San Diego, CA. *Version 2:* Fleet Training Center, Norfolk, VA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/74–Present.

Objectives: To train enlisted personnel to maintain AN/VCC-2, AN/VRC-46, and AN/SRA-60 telephone equipment.

Instruction: Lectures and laboratories in maintenance and material management, and in AN/VCC-2, AN/VRC-46, and AN/SRA-60 telephone-telegraph communication system familiarization, operation, functional analysis, and maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (11/77).

NV-1715-0250

Transmitter AN/WRT-4 Combined Maintenance

(Special Communications Equipment AN/WRT-4 Maintenance)

Course Number: A-101-0106; L-101-028; F-101-0021.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 4–5 weeks (120–150 hours).

Exhibit Dates: 5/67–Present.

Objectives: To train enlisted personnel to operate and maintain AN/WRT-4 communications equipment.

Instruction: Lectures and practical exercises in AN/WRT-4 communications equipment maintenance, including principles of operation; descriptive treatment of components, including block-diagram analysis, power supply operation, circuits, oscillator, generator, and output divider; and equipment troubleshooting and maintenance techniques. Troubleshooting of vacuum tube and transistor subsystems is taken to the component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic engineering technology laboratory (9/77).

NV-1715-0251

AN/WRA-3 Combined Maintenance

(Special Communications Equipment AN/WRA-3 Maintenance)

Course Number: A-101-0105; L-101-029.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 4–5 weeks (120–150 hours).

Exhibit Dates: 5/67–Present.

Objectives: To train maintenance personnel to operate and maintain AN/WRA-3 communications equipment.

Instruction: Lectures and practical exercises in AN/WRA-3 operation and maintenance, including descriptive treatment of components, block-diagram analysis, and maintenance and troubleshooting procedures. Equipment serviced is vacuum tube or tube/transistor hybrid. Extensive troubleshooting techniques are taught using noise generators, oscilloscopes, VTVM, frequency counters and frequency generators to repair the equipment to the component level.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronic engineering technology laboratory (9/77).

NV-1715-0252

CONALOG Maintenance Norden (Enlisted)

Course Number: A-623-0032; F-623-025.

Location: Submarine School, Groton, CT.

Length: 6 weeks (180 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train enlisted personnel to maintain and calibrate the CONALOG system and associated test and auxiliary equipment.

Instruction: Lectures and practical exercises in the maintenance of the CONALOG system and associated test and auxiliary equipment, including block diagram of closed-circuit television systems, introduction to AN/USM-105A oscilloscopes, primary power distribution and low-voltage power supply, circuit analysis of display generation systems and circuits, system overhaul, video processor circuits, and course-computing and control circuits; roll, trim, and servo data flow; depth computation and control circuits; and alarm circuits data flow.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics or electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics or electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electronics or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0253

CONALOG (Norden) Refresher Maintenance and Troubleshooting

Course Number: L-191-011.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 3 weeks (105 hours).

Exhibit Dates: 7/68–Present.

Objectives: To train interior communications electricians to operate and repair the Norden CONALOG system on FBM submarines.

Instruction: Lectures and practical exercises in the operation and repair of the Norden CONALOG system on FBM submarines, including use of the Tektronic 545 B oscilloscope, function of the John Fluke meter, circuit tracing, operation and alignment of the CONALOG system equipment, and troubleshooting procedures. Course designed to update previous training and skills.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory, and additional credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0254

E-2A AN/ACQ-2 and AN/ACQ-2A Data Terminal Sets Intermediate Maintenance

Course Number: C-150-3478.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 9 weeks (360 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to operate and troubleshoot the AN/ACQ-2 data terminal set and the AN/ASM-228 and AN/USM-145 test benches.

Instruction: Lectures and practical exercises in the maintenance of the AN/ACQ-2 data terminal set and the AN/ASM-228 and AN/USM-145 test benches, including data terminal system familiarization, logic circuits, code generalization, Doppler and synchronization circuits, code recogition circuits, control circuits, oscilloscope, counter, signal generator, wave analyzer, distortion analyzer, and operation of specialized test benches.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0255

F-4B Communication Navigation Identification (CWI) Organizational Maintenance

Course Number: C-102-3814.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train maintenance personnel to operate and maintain the F-4B CNI systems at the organizational maintenance level.

Instruction: Lectures and practical exercises in the maintenance of the F-4B CNI systems, including naval aviation maintenance program, compact wire bundle identification, safety, communications system, intercom, power supply, UHF transceiver, navigation system, TACAN system, navigational computer, identification of unknown aircraft, IFF system, transponder set, radar beacon, armament interface system, and data link and instrument landing systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0256

P-3C Sensor Station One and Two (Acoustic Systems Technician) Organizational Maintenance

Course Number: C-102-3590.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 4–5 weeks (160–200 hours).

Exhibit Dates: 6/71–Present.

Objectives: To train enlisted personnel to maintain the acoustic systems of the P-3C aircraft.

Instruction: Lectures and practical exercises in the maintenance and troubleshooting of the acoustic systems of the P-3C aircraft, including operation and components of the sonobuoy receiver system, the bathythermograph recorder, the TD-900/AS time code generator-decoder, the AN/AQH-4 sound recorder-reproducer system, and the sonar computer recorder group, and procedures of organizational-level maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0257

F-4B AN/APA-157 Radar Set Group Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain, repair, and test the AN/APA-157 radar set group at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/APA-157 radar set group, including illumination and missile-tuning circuits, functional analysis special test equipment operation, missile-firing group, various component functions, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0258

S-2G AN/AQA-7(V)3 Sonar Computer Recorder Group Organizational Maintenance

Course Number: C-102-3623.

Location: Air Maintenance Training Detachment, Quonset Point, RI.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train fleet maintenance personnel to maintain and repair the S-2G AN/AQA-7(V)3 sonar computer-recorder group system.

Instruction: Lectures and practical exercises in the maintenance of the S-2G AN/AQA-7(V)3 sonar computer-recorder group system, including history of sonobuoy system, principles of operation, Lofar and Difar operation, signal data recorder, bearing frequency controls, digital memory unit function, various operational modes, range search and analysis of frequency bands, test modes, and alignment and adjustment.

Credit Recommendation: In the vocational certificate category, credit in electrical or electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0259

Talos Weapon Direction System Mk 6 (WDE Mk 2) Class C

Course Number: A-121-0036.

Location: Guided Missiles School, Dam Neck, VA; Schools Command, Mare Island, CA.

Length: 24 weeks (720 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain and repair the Talos weapon director system.

Instruction: Lectures and practical exercises in the maintenance of the Talos weapon director system, including radar signal generator; basic digital computer concepts, programming techniques,number systems, and binary functions; Mk 128 computer function, input functions, and buffer unit; power distribution and display equipment; special radar circuits, power supplies, multivibrators, differential amplifiers; radar signal simulator; symbol generator; tracking, elevation, and target director consoles; Talos and Tartar launcher and assignment consoles; and auxiliary equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0260

A-7E AN/APQ-126 Radar Set Intermediate Maintenance

Course Number: *Version 1:* C-102-3789. *Version 2:* Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: *Version 1:* 6 weeks (180 hours). *Version 2:* 8 weeks (240 hours).

Exhibit Dates: *Version 1:* 12/72–Present. *Version 2:* 1/71–11/72.

Objectives: To train aviation fire control technicians to maintain, operate, troubleshoot, and align AN/APQ-126 radar sets, utilizing intermediate test sets.

Instruction: *All Versions:* Lectures and practical exercises in the operation of the AN/APQ-126 radar set, including power supply programmers, transmitter/modulators, antenna/receivers, air navigation computers, sweep generators, fault locators, indicator-multiple displays, and test sets; and operation of antenna boresight test sets. *Version 1:* Includes assembly test and troubleshooting.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 2 semester hours in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0261

Sonar Receiving Set AN/BQG PUFS Maintenance

(Sonar Receiving Set AN/BQG-4/4A (PUFS) Combined Maintenance)

Course Number: A-130-0026; K-130-1008.

Location: Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 18 weeks (655–665 hours).

Exhibit Dates: 6/69–Present.

Objectives: To train sonar (submarine) technicians to operate, adjust, and maintain the AN/BQG-4 sonar receiver.

Instruction: Lectures and practical exercises in the troubleshooting and maintenance of AN/BQG-4 sonar receiver equipment, including generation and synchronization of system timing, hydrophone amplifier subsystem, delay line time compressors, relock amplifiers, high-speed counters, input buffer and shift register, post integrator and timing circuits, information display units, pulse generators, range and bearing computers, and power distribution.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0262

P-3 AN/ARN-52 TACAN Maintenance, No. 30

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (136 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel with knowledge of basic transistors to operate and maintain the AN/ARN-52 (V) TACAN system at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance and troubleshooting of the AN/ARN-52 (V) TACAN system, including power supply and distribution network, channel servo operation, generation of RF, frequency multipliers and RF amplifiers, decoders, AGC circuits, video circuits, bearing circuitry, range circuits, and the antenna system.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics or electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics or electronics laboratory (3/74); in the upper-division baccalaureate category, credit in electronics or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0263

A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain and repair CP-66A/ASB-1 bombing data computers.

Instruction: Lectures and practical exercises in the maintenance of the CP-66A/ASB-1 bombing data computer, including bombing problems, mechanical and electrical computing devices and systems, shafts and gears, mathematics, trigonometry, synchros, servomotors, tracking computer subsystems, gearshifts, heading-range-azimuth systems, wind resolvers and true-air-speed systems, bomb release computing systems altitude, time-of-fall and ground speed systems, test equipment, alignment, and mechanical and electrical maintenance of the ASB-1 system.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 2 semester hours in electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0264

Target Designation System Mk 5 Maintenance

Course Number: K-113-2073.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fire control technicians to maintain a shipboard target designation system Mk 5.

Instruction: Lectures and practical exercises in the maintenance of the Mk 5 shipboard target designation system using associated test equipment, including instruction in video generator, designation indicator, coordinate converter and remote indicators, power distribution within system, sweep generation circuits, timing circuits, external circuitry, casualty analysis, and alignment of equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0265

Sonar Receiving Set AN/WLR-9A/12 Combined Maintenance

Course Number: A-130-0160.

Location: Fleet Antisubmarine Warfare Training Center, Pacific, San Diego, CA; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–12/77.

Objectives: to provide the theory and skills required to operate and maintain a sonar receiving set.

Instruction: A basic course on operational characteristics, safety and security, and signal flow, all on the block-diagram level. Instruction includes maintenance, adjustment, and troubleshooting of the receiver.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0266

Integrated Avionics Weapons System Specialist

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA.

Length: 12 weeks (482 hours).

Exhibit Dates: 7/71–Present.

Objectives: To train electronics maintenance personnel to operate and maintain the complex integrated avionics weapons and navigation systems.

Instruction: Lectures and practical exercises in the maintenance of the complex integrated avionics weapons and navigation systems, including system and radar theory, tactical computers, weapons and electrical systems, circuit analysis, block diagrams, navigation and weapons control systems, computer mathematics, power supply and distribution systems, antenna operation, testing, associated equipment, weapon delivery, video display, applicable computer instruction, and test equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0267

Integrated Avionics Weapons System Technician

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/71–Present.

Objectives: To train electronics maintenance personnel to operate and maintain integrated avionics weapon delivery and navigation systems.

Instruction: Lectures and practical exercises in maintenance of the complex integrated avionics weapon delivery and navigation system, including radar theory, digital and analog computers, optics, refraction of light, fiber optics applications, weapons control systems, navigation systems, data links, descriptive mathematics, tactical computers, inertial measurement, detailed circuit analysis, block diagrams, altimeters, Doppler radar theory, weapons release systems, malfunction isolation and associated test equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (3/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0268

P-3 Anti-Submarine Warfare (ASW) Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/70–Present.

Objectives: To train fleet personnel to maintain antisubmarine warfare systems.

Instruction: Lectures and practical exercises in the maintenance, inspection, and fault isolation of antisubmarine warfare systems, including peak and tweak procedures and lubrication, and organizational maintenance of the direction finder, pulse analyzer, particle detector, magnetic anomaly detector, position indicator, sono receivers, tape recorder system, and sonar data recorder.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0269

RA-5C Shoehorn Organizational Maintenance

Course Number: C-102-3744.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4–5 weeks (160–200 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train maintenance personnel to operate and maintain the RA-5C electronic warfare systems.

Instruction: Lectures and practical exercises in the maintenance of the RA-5C electronic warfare systems, including various countermeasures systems, warning systems, system locations, and test, maintenance, and operation of countermeasure and self-destruct systems.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0270

Aviation Antisubmarine Warfare (AASW) for First Tour Pilots P3A/B/(D)

Course Number: E-2D-0064; E-2D-064.

Location: Fleet Aviation Specialized Operational Training Group, Moffett Field, CA.

Length: 3–4 weeks (107–126 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train aviators for an initial aviation antisubmarine warfare (AASW) tour.

Instruction: Lectures and practical exercises in the operation of aviation antisubmarine warfare, including oceanography and underwater acoustics, the P3A/B(D) aircraft AASW sensors, current AASW tactics, use of radar in antisubmarine warfare, location tactics, submarine targets, and current submarine operations and tactics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1715-0271

Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance

Course Number: A-113-0073.

Location: Service School Command, Great Lakes, IL.

Length: 15 weeks (450 hours).

Exhibit Dates: 11/75–Present.

Objectives: To train students in the operation, preventive maintenance, and repair of a gun fire control system.

Instruction: Instruction in the safe operation of the Director and the Director drive system, and in troubleshooting the Director control, computers, stable element, and system interface.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer maintenance and 6 in electromechanical drive systems (9/77).

NV-1715-0272

1. A-6 Weapons System Specialist Organizational Maintenance
2. A-6A Weapons System Specialist

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: *Version 1:* 12 weeks (480 hours). *Version 2:* 10 weeks (400 hours).

Exhibit Dates: *Version 1:* 10/69–Present. *Version 2:* 1/68–9/69.

Objectives: To train enlisted personnel to perform preflight, postflight, and operational checks on A-6 and A-6A integrated weapons systems and to isolate faults through debriefing techniques and cockpit operation of avionics systems.

Instruction: Lectures and laboratories in integrated weapons systems, electronic countermeasures and aircraft armament systems, DIANE air navigational systems, ballistics computers, radar systems (servo and track), and systems operation and troubleshooting.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0273

Naval Tactical Data Systems Data Transmission Group Maintenance

Course Number: Not available.

Location: Tactical Data Systems Maintenance Class C School, Mare Island, CA.

Length: 20 weeks (600 hours).

Exhibit Dates: 5/64–12/68.

Objectives: To train enlisted personnel with training in Boolean algebra, logic, number systems, electronics, transistors, semiconductors, and vacuum tube theory to operate and maintain NTDS data transmission equipment.

Instruction: Lectures and practical exercises in the maintenance of NTDS data transmission equipment, including control and channeling equipment, modes of operation, control timing generator, transmit sequence control and generator, transmit program control, control code generator and recognition, computer control, frequency synthesizer, Doppler correction unit, frequency and phase demultiplexing, synchronization, fundamentals of single sideband, communications patching switchboard and converter indicator, R.F. amplifiers, multicouplers, and the audio patching adapter unit.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0274

Naval Tactical Data Systems Maintenance

Course Number: Not available.

Location: Tactical Data Systems Maintenance School, Mare Island, CA.

Length: 20 weeks (588 hours).

Exhibit Dates: 1/65–12/68.

Objectives: To train enlisted personnel to maintain the USQ-20 Naval Tactical Data System (NTDS).

Instruction: Lectures and practical exercises in the maintenance of the USQ-20 Naval Tactical Data System (NTDS), including digital computer functions, AN/SYA data display group, specific channeling equipment, high-capacity communication system, introduction to keyset complex, USQ-20 components and input/output timing chain, various console operations, and introduction to NTDS A link.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0275

FUNDAMENTAL ANALYSIS TECHNIQUES (P-3)

Course Number: E-210-55.

Location: Fleet Airborne Electronics Training Unit, Pacific, Moffett Field, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train transitioning VP antisubmarine warfare operators to analyze Jezebel equipment at a basic level.

Instruction: Lectures and practical exercises in the analysis of Jezebel equipment, including basic procedures, intelligence, and interpretation.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0276

BRIGHT RADAR INDICATOR TOWER EQUIPMENT MAINTENANCE, CLASS C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/71–Present.

Objectives: To train electronics technicians to operate and maintain television indicator equipment.

Instruction: Lectures and practical exercises in a descriptive treatment of television principles, cameras, and display units; plan-position indicators; and review of solid-state devices.

Credit Recommendation: In the vocational certificate category, 3 semester hours in television technology (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in television technology, and credit in electronics laboratory on the basis of institutional evaluation (4/74).

NV-1715-0277

AN/SQS-23, 23A, 23B, 23C MAINTENANCE AND ASPECT

Course Number: Not available.

Location: Fleet Sonar School, Key West, FL; Fleet Sonar School, San Diego, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain and repair the AN/SQS-23 series sonar set.

Instruction: Lectures and practical exercises in the maintenance of the AN/SQS-23 series sonar set, including systems components and power supply, circuitry, generator operation, introductory transistor principles, extensive treatment of applicable electronic circuits (vacuum tube), and beam receiver and control circuits.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity or electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0278

TALOS RADAR AN/SPW-2B, CLASS C

Course Number: Not available.

Location: Naval Schools Command, Mare Island, CA.

Length: 16 weeks (480 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train fire control technicians and engineers to maintain and operate the Talos radar system.

Instruction: Lectures and practical exercises in the maintenance of the Talos radar system, including system components, data flow and maintenance procedures, range data and pulse transmitter output instruction, and power distribution and mode switching circuits for specific equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, credit in advanced circuits laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0279

A-3 RELATED AVIONICS SYSTEM (AT/AQ) ORGANIZATIONAL MAINTENANCE

(A-3 Related Avionics System (AT/AQ) Organizational Level Maintenance)

Course Number: C-102-3706.

Location: Air Maintenance Training Detachment, Alameda, CA.

Length: 2–3 weeks (80–120 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel to maintain specific aircraft electronic systems.

Instruction: Lectures, demonstrations, and practical exercises in A-3 (AT/AQ) aircraft familiarization; avionics system organizational maintenance; general-purpose line test equipment, operating procedures and safety precautions; radar systems components maintenance and troubleshooting; and various radio sets and navigation systems components, operation, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0280

A-4C/E/F AN/APG-53A RADAR INTERMEDIATE MAINTENANCE

(A-4C/E AN/APG-53A Radar Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain and service the AN/APG-53A radar.

Instruction: Lectures and practical exercises in AN/APG-53A radar maintenance, including system familiarization; components operation; power supply, transmitter, RF plumbing and duplexer theory of operation; and receiver, transmitter, indicator, power supply, and altitude computer alignment and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0281

A3B AN/ASB-1A SYSTEM MAINTENANCE (LESS COMPUTER CP-66A)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (240 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain the AN/ASB-1A bomb director set on an intermediate level.

Instruction: Lectures and practical exercises in the maintenance of AN/ASB-1A director sets, including operating procedures, stabilization subsystem assembly and functions, optical subsystems analysis, tunable radar system function and circuits, emergency and SLAM system, and malfunction and error analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0282

TALOS RADAR AN/SPG-49B, CLASS C

Course Number: A-104-0086.

Location: Naval Schools Command, Mare Island, CA.

Length: 24 weeks (720 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train fire control technicians to maintain a specific radar set.

Instruction: Lectures and practical exercises in the maintenance of the Talos radar AN/SPG-49B, including operation, data flow, circuit information, test methods and equipment, and various component maintenance procedures.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0283

AN/SPG-53A RADAR MAINTENANCE

Course Number: K-113-2027.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fire control technicians and designated strikers to maintain the AN/SPG-53A radar.

Instruction: Lectures and practical exercises in the maintenance of the AN/SPG-53A radar, including power distribution, synchronizing system, transmitting system, acquisition system, ranging and angle error systems, and adjustment and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0284

AUTODIN/DSTE/DSSCS/MODE V MAINTENANCE, CLASS C1

Course Number: A-101-0056.

Location: Service School Command, Great Lakes, IL.

Length: 11 weeks (420 hours).

Exhibit Dates: 5/75–Present.

Objectives: To train selected personnel to maintain the AUTODIN system.

Instruction: Instruction covers the operation and maintenance of the AUTODIN system including peripheral equipment, logic elements, memory control, input-output, paper tape readers and punches, card readers, data terminals, and line printers.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer systems and 5 in computer equipment laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer hardware (9/77).

NV-1715-0285

AN/ALQ-108 Countermeasure Set
Intermediate Maintenance

Course Number: C-102-3076.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train fleet maintenance personnel to maintain and repair the AN/ALQ-108 countermeasures set at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/ALQ-108 countermeasures set, including basic system concepts, system component functions and description, synchronization and code generation, timing, various subsystems, control indicator and power supplies, and testing and repair procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0286

All Weather Carrier Landing System
Equipment Maintenance,
AN/SPN-42, Class C
(Automatic Carrier Landing System Equipment Maintenance AN/SPN-42 (ET), Class C)

Course Number: C-103-2013.

Location: Air Technical Training Center, Glynco, GA; Air Technical Training Center, Memphis, TN.

Length: 11-15 weeks (440-600 hours).

Exhibit Dates: 8/68–Present.

Objectives: To train electronic technicians to operate and maintain the AN/SPN-42 all-weather carrier-landing system, including Univac 1219 computers.

Instruction: Lectures and laboratories in a review of computer technology; introduction, basic concepts, and power control of the all-weather carrier-landing systems; radar subsystems; data stabilization subsystems, control and monitoring equipment; input and output buffers; Naval Tactical Data System (NTDS) buffers, data link monitors, and system analysis; and maintenance procedures.

Credit Recommendation: In the vocational certificate category, credit in computer technology and electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in computer technology and electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0287

AN/APS-82 Radar System
Intermediate Maintenance
(E-1B AN/APS-82 Radar System Maintenance)

Course Number: C-102-3460; C-102-19.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Norfolk, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 6/66–Present.

Objectives: To train maintenance personnel to operate and maintain AN/APS-82 radar systems.

Instruction: Lectures and practical exercises in the maintenance of the AN/APS-82 radar system, including analysis of control circuits, power supply and RF circuits, block-diagram analysis, receiver and video distribution circuits, auxiliary equipment (antenna and PPI indicator circuits; computer, height indicator, and synchronizer circuits), and system troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0288

A-4 Tactical Air Navigation
(TACAN) AN/ARN-52(V)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain and operate the AN/ARN-52 navigational TACAN radio system at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/ARN-52 navigational TACAN radio system, including theory of operation, bearing-measuring circuitry, power supply and distribution, and components; range-measuring circuitry, antenna selector circuits, and troubleshooting procedures.

Credit Recommendation: No credit because of the limited technical nature of the course (4/74).

NV-1715-0289

Aviation Electronics Technician,
Class A

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 9 weeks (352 hours).

Exhibit Dates: 7/67–12/68.

Objectives: To train enlisted personnel with a knowledge of avionics fundamentals to operate and maintain aircraft electronics systems.

Instruction: Lectures and practical exercises in the maintenance of a wide variety of aircraft electronics systems, including theory of operation; block-diagram analysis; tube and solid-state electronic circuit fundamentals; electronic concepts required for the maintenance of airborne search radar and identification, navigation, and communication equipments; TACAN theory and application; navigational computer fundamentals; and auxiliary systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics systems (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (4/74).

NV-1715-0290

AN/SQQ-14 Maintenance (Enlisted)

Course Number: A-130-0014.

Location: Fleet and Mine Warfare Training Center, Charleston, SC.

Length: 5 weeks (150 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train enlisted personnel with knowledge of solid-state electronics theory and skills to test and maintain the AN/SQQ-14 mine classifying-detecting set.

Instruction: Lectures and practical exercises in the maintenance of the AN/SQQ-14 mine classifying-detecting set, including primary power distribution, test equipment, hoist assembly and function, servo system, master timing, transmitters and receivers, various timing systems, and alignment and maintenance of systems and subsystems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0291

Terrier Radar AN/SPQ-5A

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 24 weeks (720 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain a specific radar system.

Instruction: Lectures and practical exercises in the maintenance of the Terrier weapon system and associated radar equipment, including system components, operation, data flow of track radar, capture and guidance radar, and primary and low-voltage power; special test equipment, receiver and transmitter circuits, analysis and operation of various circuits, operation of beacon receivers and missile loops, and tests and maintenance.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0292

Air Traffic Control Equipment
Maintenance Management

Course Number: C-103-2025.

Location: Air Technical Training Center, Glynco, GA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/72–Present.

Objectives: To train officers and senior enlisted personnel to perform as ground electronic maintenance managers and to supervise the maintenance and installation of air traffic control systems.

Instruction: Lectures in the management of air traffic control systems associated with air traffic control facilities, including equipment operation; radar, radio, and navigational principles; records, supply, and safety; maintenance policies; and system siting and flight inspections.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in aerospace technology (4/74).

NV-1715-0293

Carrier Air Traffic Control Center Equipment Maintenance (AN/SPN-6), Class C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 3 weeks (104 hours).

Exhibit Dates: 6/69–Present.

Objectives: To train electronics technicians to operate the AN/SPN-6 radar system.

Instruction: Lectures and practical exercises in the maintenance of the AN/SPN-6 radar system, including operation, components, transmitter and receiver circuits, antenna stabilization, system standards and troubleshooting, and alignment and adjustment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0294

A-4 AN/AJB-3/3A Organizational Maintenance

Course Number: C-602-3723.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/73–Present.

Objectives: To train maintenance personnel to maintain and operate the AN/AJB-3/3A and the remote standby attitude-indicating systems.

Instruction: Lectures and practical exercises in the maintenance of the AN/AJB-3/3A and the remote standby attitude-indicating systems, including theory of operation, internal computer systems, components, power supply, system analysis, testing procedures and troubleshooting, and the attitude indicator system components, operation, and testing.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0295

Aviation Electronics Technician R (Radar), Class A

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 8–11 weeks (320–440 hours). *Version 2:* 21 weeks (840 hours).

Exhibit Dates: *Version 1:* 12/58–7/67. *Version 2:* 5/56–11/58.

Objectives: To train enlisted Navy and Marine Corps personnel to qualify as aviation electronics technicians.

Instruction: *All Versions:* Lectures and laboratory exercises in electronic systems theory and operation, including radar search, identification, navigation, and EMC systems; communications and control systems; extensive text study and equipment maintenance and troubleshooting. *Version 1:* Instruction includes reduced hours but strong coverage of electronic systems. *Version 2:* Instruction includes more extensive training in electronic systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in aviation electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced electronics, 3 in electronics laboratory (3/74). *Version 2:* In the vocational certificate category, 10 semester hours in aviation electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in electronic circuits (12/68); in the upper-division baccalaureate category, 4 semester hours in radar systems (3/74).

NV-1715-0296

Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance

Course Number: A-102-0101.

Location: Naval Schools Command, San Francisco, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train electronic warfare technicians to maintain and repair the AN/SPH-2 radar data recorder-reproducer and associated equipment, and the 15-E-27 video recorder-reproducer.

Instruction: Lectures and practical exercises in the maintenance of the AN/SPH-2 radar data recorder-reproducer and associated attachments, and the 15-E-27 video recorder-reproducer, including digital logic review, search radar, displays, and distribution systems, operation procedures, video and data channel recording and reproduction, power distribution, and magnetic tape recorder operation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0297

A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance

Course Number: C-102-3774.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/71–Present.

Objectives: To train maintenance personnel to maintain the AN/APQ-92 search radar system.

Instruction: Lectures and practical exercises in AN/APQ-92 search radar system maintenance, including azimuth/elevation range indicator, azimuth/range indicator, and PHD/DVRI test set theory of operation, including functions, circuit analysis, block-diagram analysis, purpose, and equipment breakdown; detailed test, maintenance, shop, and check-out procedures; and equipment safety and repair procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0298

Electronics Technician, Class C, AN/SPS-37, 37A Radar Sets and AN/SPA-63 Countermeasures Receiving Group

(Electronics Technician, Class C, AN/SPS-37/A Radar Set and AN/SPA-63 Countermeasures Receiving Group)

Course Number: A-104-0051.

Location: *All Versions:* Service Schools Command, San Diego, CA. *Version 2:* Fleet Training Center, Norfolk, VA.

Length: 9 weeks (270 hours).

Exhibit Dates: 6/71–Present.

Objectives: To train electronics technicians who have some knowledge of radar to maintain the AN/SPS-37, 37A radar systems and the AN/SPA-63 countermeasures receiving group.

Instruction: Lectures and practical exercises in the maintenance of the AN/SPS-37, 37A radar systems and the AN/SPA-63 countermeasures receiving group, including components, transmitter and receiver channel circuits, ancillary equipment (antennas, range indicator, oscilloscopes), and systems operation, troubleshooting, technical maintenance, and repair.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0299

AN/APN-187 DVARS Intermediate Maintenance

Course Number: C-102-3574.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/73–Present.

Objectives: To train fleet maintenance personnel to maintain the AN/APN-187 DVARS radar system.

Instruction: Lectures and practical exercises in the maintenance of the AN/APN-187 DVARS radar system (consisting of a specific receiver-transmitter-antenna, a computer frequency tracker, and a control indicator), including operation, circuit analysis, alignment, and test procedures, and use of special test equipment and repair techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0300

AN/SQS-26 AXR Electronic Maintenance

Course Number: J-130-0835.

Location: Fleet Sonar School, Key West, FL.

Length: 24 weeks (960 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted personnel to test and maintain the AN/SQS-26 sonar system.

Instruction: Lectures and practical exercises in maintenance and testing procedures for the AN/SQS-26 sonar system and subsystems, including system operation, auxiliary equipment, components, signal processing, range and bearing, and set maintenance. Includes brief presentation of underwater sound principles and brief introduction to binary arithmetic and logic symbols.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0301

60/400 Hz Power Converter Maintenance, Class C1

Course Number: A-652-0077.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/77–Present.

Objectives: To train personnel in the operation and maintenance of the 60/400 Hz power converter.

Instruction: Lectures and practical exercises in troubleshooting and repair of faulty electrical circuits and the cooling system.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (9/77).

NV-1715-0302

A-6 AN/APQ-112 TRACK RADAR AND ASSOCIATED TEST EQUIPMENT INTERMEDIATE MAINTENANCE

Course Number: C-104-3761.

Location: Air Maintenance Training Detachment, Oceana, VA.

Length: 10 weeks (400 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train enlisted personnel to repair and maintain specific radar equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of specific radar equipment, including track radar theory and components.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0303

AN/BQS-4 SONAR MAINTENANCE

Course Number: F-130-010.

Location: Submarine School, Groton, CT.

Length: 4 weeks (120 hours).

Exhibit Dates: 6/69–Present.

Objectives: To train sonar technicians to maintain AN/BQS-4 series sonar systems.

Instruction: Lectures and laboratories in review of mathematics oriented toward decibel calculations, system function and description, and test and maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0304

AN/SPS-48 RADAR SET

Course Number: None.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 31 weeks (930 hours).

Exhibit Dates: 1/68–Present.

Objectives: To provide enlisted personnel with advanced training in the operation and maintenance of AN/SPS-48 radar sets.

Instruction: Lectures and laboratories in review of mathematics, including trigonometry, multiple unit functions, numbering systems, radix conversions, Boolean algebra, and logic symbol expression conversion; semiconductor theory; application and use of test equipment, including oscilloscopes, pulse generators, and electronic counters; and description and maintenance of AN/SPS-48 radar sets.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in advanced electronics laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0305

ELECTRONICS TECHNICIAN, CLASS C, AN/SPS-8 RADAR MAINTENANCE

Course Number: Not available.

Location: Electronic Technician, Class C School, Treasure Island, CA.

Length: 5 weeks (150 hours).

Exhibit Dates: 10/64–12/68.

Objectives: To train electronics personnel to operate and maintain AN/SPS-8 radar equipment and associated test equipment.

Instruction: Lectures and laboratories in introduction and familiarization with radar systems; transmitting systems and magnetron care and handling; power distribution; receiving systems; antenna control systems; VL-1 repeaters; video indicators; preventive maintenance; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0306

AN/SPG-50 MAINTENANCE

Course Number: K-113-2026.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fire control technicians and strikers to maintain and repair AN/SPG-50 radar sets.

Instruction: Lectures and practical exercises in radar set familiarization; power distribution; synchronizing, transmitting, receiving, presentation, ranging, and angle error systems; radar set adjustments; and radar set maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0307

AN/BQQ-3A SONAR MAINTENANCE

Course Number: F-130-016.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel with a background in transistor theory to test and maintain AN/BQQ-3A sonar systems.

Instruction: Lectures and practical exercises in basic theory of operation, and routine preventive and technical corrective maintenance procedures for sonar systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0308

F-4J WEAPON SYSTEM SPECIALIST ORGANIZATIONAL MAINTENANCE

Course Number: C-112-3810.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 9 weeks (360 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train fleet maintenance personnel to maintain the AN/AWG-10 missile control system.

Instruction: Lectures and practical exercises in the maintenance of the AN/AWG-10 missile system, including system description and function, system components, check-out, troubleshooting and repair of system and components, power distribution, missile control, pulse radar and display systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0309

F-4B/J KY-532A/ASQ IFF TRANSPONDER INTERMEDIATE MAINTENANCE

Course Number: C-112-23.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train enlisted personnel to maintain and repair the KY-532A/ASQ IFF transponder at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance and repair of the KY-532A/ASQ IFF transponder, including theory of operation, block-diagram analysis, component description and function, and testing and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0310

ELECTRONICS TECHNICIAN, AN/SPA-34 INDICATOR GROUP, CLASS C

Course Number: A-104-0016; A-104-0018.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted personnel who have completed training in basic radar to maintain the AN/SPA-34 indicator group.

Instruction: Lectures and practical exercises in the maintenance of the AN/SPA-34 indicator group, including operation of the maintenance and material management system, operation and functional block-diagram analysis of equipment, sweep gate and cursor gate generators, sweep generator and amplifier, off-centering, range ring and strobe generators, servoamplifiers, and testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0311

EA-6B COMMUNICATIONS, NAVIGATION AND RADAR SYSTEM ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3943.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train fleet maintenance personnel who have backgrounds in electronics to maintain communications, navigation, and radar equipment.

Instruction: Lectures and practical exercises in the maintenance of communications, navigation, and radar equipment, including communication and navigation equipment components and functions, integrated electronic central equipment, the TACAN system, search radar components and function, vertical display indicator group analysis, and systems troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0312

1. Radar AN/BPS-12, 13, 14 Combined Maintenance
2. AN/BPS-13 Radar Maintenance (AN/BPS-12, 13, 14 Radar System Maintenance)

Course Number: *All Versions:* A-104-0165. *Version 2:* L-104-0010.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 5/73–Present. *Version 2:* 1/70–4/73.

Objectives: To provide the theory and skills to perform operational and maintenance procedures on Naval radar systems.

Instruction: *Version 1:* Topics cover basic radar principles at the quantitative and block diagram levels including sweep generators, PPI amplifiers, video marker strobes, CRTs, and synchros; and fault isolation and maintenance procedures. *Version 2:* Lectures and practical exercises in AN/BPS-12, -13, and -14 radar systems operation and preventive and corrective maintenance, including system theory of operation; echo box, frequency power meter, and range calibrator operation; and maneuvering board operation for computations.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic technician training (9/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics engineering technician training (9/77). *All Versions:* Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0313

Underwater Fire Control Systems Technician (Mk 113 Mod 9)
(Underwater Fire Control Systems Technician (Target Motion Analysis Subsystem))

Course Number: A-113-0047.

Location: Guided Missiles School, Dam Neck, VA.

Length: 6 weeks (163 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train experienced fire control technicians to maintain analyzer fire control systems.

Instruction: Lectures and laboratories in analyzer fire control system maintenance, including digital computer, D/A and A/D converters, data storage, interfacing, and cathode ray tube operation and maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (4/74).

NV-1715-0314

490T-1/1A Antenna Coupler Intermediate Maintenance

Course Number: C-102-3012.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Cp. Pendleton, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fleet maintenance personnel to maintain the 490T-1/1A antenna coupler.

Instruction: Lectures and practical exercises in 490T-1/1A antenna coupler maintenance, including circuit analysis, test equipment usage, publications usage, and couplers and modules testing and repairing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0315

Target Designation System Mk 5 Shipboard Maintenance

Course Number: J-113-0129; J-113-1291; J-113-1292.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fire control technicians to test, adjust, and maintain the Mk 5 target designation system.

Instruction: Lectures and practical exercises in Mk 5 target designation system maintenance, including system power distribution and power supplies, multivibrators, servo loops, timing and deflection circuits, pulse generators, and amplifiers.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer science (4/74).

NV-1715-0316

Submarine Radioman Electricity and Electronics

Course Number: A-101-0053.

Location: Submarine School, Groton, CT.

Length: 16 weeks (480 hours).

Exhibit Dates: 11/70–Present.

Objectives: To train enlisted personnel to become submarine radiomen.

Instruction: Lectures and laboratories in electrical and electronic theory; basic and advanced transistor theory; basic arithmetic and algebra; physics; elementary computer principles; various instruments and testers operation; biasing procedures; and elementary circuits, resonance, vacuum tubes, amplifiers, and transistors operation.

Credit Recommendation: In the vocational certificate category, 9 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics (4/74); in the upper-division baccalaureate category, 1 semester hour in electronics for electrical engineering majors, 3 for nonmajors (4/74).

NV-1715-0317

1. Radioman, Class C7 (Radioman, Class B)
2. Radioman, Class B (Class B, Radiomen)

Course Number: A-201-0019.

Location: Service Schools Command, San Diego, CA; Service Schools Command, Bainbridge, MD.

Length: *Version 1:* 18 weeks (540 hours). *Version 2:* 30–37 weeks (900–1110 hours).

Exhibit Dates: *Version 1:* 5/72–Present. *Version 2:* 1/55–4/72.

Objectives: To train radiomen in technician-level electricity and electronics and in management skills.

Instruction: Lectures and practical exercises in basic electricity and electronics, basic transistor theory and applications, troubleshooting a practical communications superheterodyne receiver, test equipment operation and special circuits, various transmitters and receivers equipment operation and troubleshooting, radio teletype terminal set and frequency shift keyer and converter equipment operation and troubleshooting, and electronics administration.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74). *Version 2:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 6 semester hours in electricity and electronics for non-engineering students, 2 in electronic laboratory for engineering students (3/74).

NV-1715-0318

E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance

Course Number: *Version 1:* C-150-3479. *Version 2:* C-150-15.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: *Version 1:* 11 weeks (440 hours). *Version 2:* 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 6/70–Present. *Version 2:* 7/66–5/70.

Objectives: To train enlisted personnel who have backgrounds in digital and transistor fundamentals to operate and troubleshoot the computer indicator test console.

Instruction: Lectures and practical exercises in computer indicator test console operation and maintenance, including logic circuits, interconnection of logic elements and flip-flops; programming console operation, components, and maintenance; and logic testing procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (3/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (3/74).

NV-1715-0319

Integrated Announcing System AN/WIC-2 Combined Maintenance

Course Number: A-623-0051; F-623-014.

Location: Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2–3 weeks (60–90 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train maintenance personnel to operate, troubleshoot, and repair shipboard interior communication equipment.

Instruction: Lectures in shipboard interior communications equipment operation, troubleshooting, and repair, including block-diagram analysis; circuit theory; components description; alarm generator circuitry and test panel; maintenance and material management system; electrical safety precautions; power supply, generation, and distribution systems; and color code and circuit tree construction.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (9/77).

NV-1715-0320

Sonar AN/SQS-54B/SKR-4
Maintenance
(Sonar AN/SQS-54B Organizational Maintenance)
(AN/SQS-54B and AN/SKR-4 (LAVA) Maintenance)
(LAVA SQS-54 Maintenance)

Course Number: A-130-0109; K-130-1060.

Location: Fleet Anti-Submarine Warfare Training Center, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 2-3 weeks (70-94 hours).

Exhibit Dates: 7/72-Present.

Objectives: To train technicians to maintain data links, telemetric receiving sets, and SQS-54 equipment.

Instruction: Lectures and practical exercises in systems operation and maintenance, modular makeup of telemetric equipment, calibration and troubleshooting procedures and the operation and maintenance of spectrum analyzers.

Credit Recommendation: In the vocational certificate category, 1 semester hour in advanced instrumentation (8/77).

NV-1715-0321

Special Technology (Enlisted)

Course Number: F-000-014.

Location: Submarine School, Groton, CT.

Length: 6 weeks (180 hours).

Exhibit Dates: 12/69-Present.

Objectives: To provide submarine radiomen and sonarmen with training in electronic fundamentals.

Instruction: Lectures and laboratories in DC and AC electrical networks, vacuum tubes, amplifiers, transmitters and receivers, and transmitter electronics.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics for non-engineering majors (3/74).

NV-1715-0322

P-3 Synchrophaser/True Airspeed
Computer/Signal Lights Control
Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/71-Present.

Objectives: To train fleet maintenance personnel to maintain P-3 synchrophasers, true airspeed computers, and signal lights controls at the intermediate maintenance level.

Instruction: Lectures and practical exercises in normal operation of systems components, operation of general and special test equipment, operation of synchroscopes, and waveform analysis.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer maintenance (3/74).

NV-1715-0323

E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment
(SACE) and Encoder Test
Console Operation and
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68-Present.

Objectives: To provide avionics personnel with training in the operation, circuitry, and maintenance of inertial navigation systems adapters and encoder test consoles.

Instruction: Lectures and laboratories in test console familiarization, inertial navigation hardware, encoders and servos, and programming and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0324

P-3 AN/ASN-42 Navigational
Computer Set Organizational
Level Maintenance, No. 15

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train maintenance personnel to diagnose, troubleshoot, maintain, and service P-3 navigational computer sets.

Instruction: Lectures and laboratories in gyroscope theory and assembly, basic block-diagram analysis and signal flow, electronic circuitry analysis, navigational computers and related components, signal data converters and related components, power supplies, and maintenance and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0325

AN/FRT-83, 84 and 85 Radio
Transmitters Maintenance,
Class C1

Course Number: A-101-0052.

Location: Service School Command, Great Lakes, IL.

Length: 10 weeks (300 hours).

Exhibit Dates: 3/74-Present.

Objectives: To train personnel to maintain, operate and adjust the AN/FRT-83, 84, 85 radio transmitter series.

Instruction: Areas of instruction include the use of the oscilloscope, harmonic analyzer, RF generators, and other equipment to troubleshoot specific radio transmitting equipment, servo-amplifiers and associated relay systems.

Credit Recommendation: In the vocational certificate category, 5 semester hours in radio electronics and 2 in radio laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio electronics (9/77).

NV-1715-0326

AN/ASA-13A Navigational Computer
Group Intermediate
Maintenance
(UH-2A/B AN/ASA-13A Navigational Computer Group Intermediate Maintenance)

Course Number: C-602-3379.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/68-Present.

Objectives: To train maintenance personnel to maintain, repair, and functionally test AN/ASA-13A navigational computer groups at the intermediate maintenance level.

Instruction: Lectures and practical exercises in operation, circuitry, calibration and adjustment, troubleshooting, and bench testing of navigational computer groups.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer maintenance (3/74).

NV-1715-0327

1. P-3 AN/ASN-42 Navigational
Computer Set Intermediate
Maintenance
2. P-3 AN/ASN-42 Navigational
Computer Set Intermediate
Level Maintenance, No. 16

Course Number: *Version 1:* C-602-3533. *Version 2:* Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: *Version 1:* 10-14 weeks (400-560 hours). *Version 2:* 16 weeks (640 hours).

Exhibit Dates: *Version 1:* 10/68-Present. *Version 2:* 1/68-9/68.

Objectives: To train maintenance personnel to diagnose, troubleshoot, maintain, and service P-3 navigational computer sets.

Instruction: Lectures and laboratories in system components and operation, gyros, Doppler tie-in and Doppler decoupler, power supplies, electronics of navigation computers, servos, calibration and alignment, and maintenance procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74). *Version 2:* In the vocational certificate category, 7 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0328

Terrier Fire Control and Missile Officer

Course Number: A-2F-0014.

Location: Guided Missiles School, Dam Neck, VA.

Length: 13 weeks (420 hours).

Exhibit Dates: 10/72–Present.

Objectives: To provide officers with instruction in the duties of the Terrier weapons, fire control, and missile battery officers.

Instruction: Lectures and laboratories in operation, capabilities, and characteristics of weapon system components; system alignment; telemetering flight analysis and logistics; and familiarization with missile search radar systems and fire control systems. Emphasis is on weapons system employment, electromagnetic compatability, tactical firing considerations, and weapons system management techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0329

P-3C Integrated Avionics System Technician

Course Number: C-102-3575.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train fleet personnel to maintain P-3C integrated avionics systems.

Instruction: Lectures and laboratories in logic, data displays, radar scan systems, television, pulse generators, and radio.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0330

P-3C Digital Data Handling Organizational Maintenance

Course Number: C-102-3599.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 13 weeks (520 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train avionics personnel to maintain P-3C data-handling systems.

Instruction: Lectures and laboratories in basic computer components, data flow in computers, diagnostics, addressing and instruction codes, input/output operations, and system maintenance.

Credit Recommendation: In the vocational certificate category, 7 semester hours in electronics or computers (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or computers (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics or computers laboratory (3/74).

NV-1715-0331

S-2D/E AN/ASN-30 Navigational Computer Display Unit and AN/ASQ-80 Coordinate Data Set System Maintenance.

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to operate and maintain the AN/ASN-30 navigational computer display unit and the AN/ASQ-80 coordinate data set system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ASN-30 navigational computer display unit and the AN/ASQ-80 coordinate data set system, including power distribution, synchronization, linear transformers, servo test sets, system operations and components, review of rotary concepts, block-diagram and circuit analysis, and system alignment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in industrial technology (3/74).

NV-1715-0332

Intelligence/Electronic Warfare Officer

Course Number: F-4B-011.

Location: Submarine School, Groton, CT.

Length: 2 weeks (68 hours).

Exhibit Dates: 4/72–Present.

Objectives: To train submarine intelligence/electronic warfare officers to supervise intelligence collection, reporting, and assessment, and to operate submarine electronics sensors.

Instruction: Lectures and practical exercises in the collection, reporting, and assessment of intelligence and in the operation of submarine electronics sensors, including principles of receivers, transmitters, and radar; physics of electromagnetic radiation; Soviet missile systems; radio wave propagation; periscope electronics; signal analysis; ASW equipment, watchstanding procedures; and mission planning.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0333

SH-3A AN/ASA-13A Navigational Computer Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train enlisted personnel with knowledge of Doppler radar navigation maintenance to operate and maintain the ASA-13A navigational computer, the specialized plotting board, and the memory and indicator groups used in automatic navigation systems.

Instruction: Lectures and practical exercises in the operation and maintenance of the ASA-13A navigational computer, specialized plotting board, and memory and indicator groups, including theory of operation, circuit analysis, systems tests, and alignment and adjustment.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0334

1. Terrier Computer Mark 119 Mod 5 (Fleet Inputs)
2. Terrier Computer Mark 119 Mod 5 (Terrier Computer Mk 119 Mods 3 and 4)

Course Number: A-150-0031; A-150-0032.

Location: *All Versions:* Guided Missiles School, Dam Neck, VA. *Version 2:* Naval Schools Command, Mare Island, CA.

Length: *Version 1:* 10 weeks (295 hours). *Version 2:* 20 weeks (600–603 hours).

Exhibit Dates: *Version 1:* 10/72–Present. *Version 2:* 2/68–9/72.

Objectives: To teach maintenance personnel the circuitry, signal flow, and characteristics of missile fire control computer groups.

Instruction: *All Versions:* Lectures and laboratories in Terrier weapons system familiarization; missile fire control problems; maintenance and material management systems; maintenance turn-on, power distribution, and power supplies; and block diagram, circuitry, and signal flows. *Version 2:* Additional time is spent on modified systems and their differences.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electronics or missile systems (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics or missile systems (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics or missile systems (3/74). *Version 2:* In the vocational certificate category, 5 semester hours in electronics or missile systems (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics or missile systems (3/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-engineering majors (3/74).

NV-1715-0335

A-6 Right Hand Unit Alignment Test Set, and Encoder Tape Dial Test Set Intermediate Maintenance

Course Number: C-102-3765.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train maintenance personnel who have had training in digital fundamentals to operate and maintain the right-hand unit alignment test set and the encoder tape dial test set associated with the ballistics computer set.

Instruction: Lectures and practical exercises in the maintenance and operation of the right-hand unit alignment test set and the encoder tape dial test set, including logic circuits, servo amplifiers, pulse generators, power supplies, block-diagram and circuit analysis, and testing procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in industrial technology (3/74).

NV-1715-0336

A-6 CARD MODULE ANALYZER TEST CONSOLE, AN/ASM-118, INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train maintenance personnel to operate and maintain card module analyzer test consoles and to test, maintain, and repair modules and cards associated with ballistics computer sets.

Instruction: Lectures and practical exercises in digital numbering systems, logic circuits, counters, power supplies, and maintenance procedures for module analyzers.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in industrial technology (3/74).

NV-1715-0337

CARRIER AIR TRAFFIC CONTROL CENTER EQUIPMENT MAINTENANCE AN/SPN-10, CLASS C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 15 weeks (600 hours).

Exhibit Dates: *Version 1:* 11/69–Present. *Version 2:* 4/65–10/69.

Objectives: To train electronic technicians to operate and maintain automatic carrier landing systems and auxiliary equipment.

Instruction: Lectures and practical exercises in analog and digital computer basics, servo systems, power supplies, operational amplifiers, resolvers, transducers, and systems maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, 2 semester hours in electronics for non-electrical-engineering majors (3/74). *Version 2:* In the vocational certificate category, 10 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0338

LORAN MAINTENANCE (ENLISTED)

Course Number: J-102-600.

Location: Fleet Training Center, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 9/72–Present.

Objectives: To train enlisted personnel with backgrounds in basic electronics theory to maintain the AN/UPN-12 and AN/UPN-15 Loran receivers, utilizing the Forecast concept of troubleshooting.

Instruction: Lectures and practical exercises in the maintenance of the AN/UPN-12 and AN/UPN-15 Loran receivers, including block-diagram analysis, waveform comparison problems, component troubleshooting, operating theory, and alignment and calibration.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0339

MK 3 MOD 6 SHIPS INERTIAL NAVIGATION SYSTEM (SINS) OPERATIONS (ENLISTED)

Course Number: F-193-082.

Location: Submarine School, Groton, CT.

Length: 4 weeks (120 hours).

Exhibit Dates: 8/69–Present.

Objectives: To train enlisted personnel to operate and monitor the Mk 3 Mod 6 Ships Inertial Navigation System (SINS).

Instruction: Lectures and practical exercises in the operation and monitoring of automated navigation equipment (SINS Mk 3 Mod 6), including gyro principles, digital filtering, circuit analysis, basic inertial navigation, components, MINDAC Micrologic and characteristics, computer layout and initialization, data interpretation and monitoring, and operation modes.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics or navigation (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics or navigation (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics or navigation laboratory (3/74).

NV-1715-0340

E-2A COMPUTER DETECTOR (CP-413/ASA-27) AND COMPUTER DETECTOR TEST CONSOLE (OA-3731/ASM-76) INTERMEDIATE MAINTENANCE

Course Number: C-150-3480; C-150-36.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 12 weeks (480 hours).

Exhibit Dates: 2/68–6/74.

Objectives: To train enlisted personnel who have backgrounds or aptitude in avionics and digital fundamentals to operate and maintain computers used in conjunction with target detection systems.

Instruction: Lectures and practical exercises in the maintenance of computer detectors and computer detector test consoles, including system fundamentals and timing, digital circuits, IFF detection, target computation, confidence testing, and data acquisition.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics or computers (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or computers (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics or computer laboratory (3/74).

NV-1715-0341

FIRE CONTROL TECHNICIAN MK 88 REPLACEMENT

Course Number: A-121-0245; A-121-0136.

Location: Guided Missiles School, Dam Neck, VA.

Length: 18 weeks (398 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to operate and maintain the Mk 88 fire control system and associated nontactical equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of fleet ballistic missile weapons system, Mk 88 fire control system, digital geoballistic computer, digital transmitter-receiver, and magnetic disk file, including theory of operation, inertial guidance components, digital-to-analog/analog-to-digital conversion, component analysis, and data flow.

Credit Recommendation: In the vocational certificate category, 7 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0342

A-6 BALLISTICS COMPUTER TEST CONSOLE INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 7 weeks (280 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain ballistics computer test consoles at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of ballistics computer test consoles, including electronic circuitry, block-diagram analysis and signal flow, digital logic circuitry, coding, check-out equipment, timing controls, order and information registers, practical applications, and aircraft replaceable assembly check-out.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory for non-electronics majors (3/74).

NV-1715-0343

TARTAR COMPUTER MK 118 MOD 0 (Tartar Computer Mk 118)

Course Number: A-150-0028.

Location: Guided Missiles School, Dam Neck, VA.

Length: 14–15 weeks (399–420 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train technicians to maintain, align, adjust, and preserve Tartar Mk 118 computers.

Instruction: Lectures and laboratories in computer operation, analog and digital devices, electromechanical devices, voltage regulators, power supplies, computer interface, and systems testing and maintenance.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics and controls (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics and controls (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics and controls (3/74).

NV-1715-0344

MK 9 MOD 4 DEAD RECKONING ANALYZER INDICATOR (DRAI) AND MK 6 MOD 4B DEAD RECKONING TRACER (DRT), CLASS C

Course Number: A-623-0028; A-623-0029.

Location: Service School Command, Norfolk, VA; Service School Command, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 9/71–Present.

Objectives: To train maintenance personnel to operate and repair dead-reckoning analyzer-indicators and tracers.

Instruction: Lectures and practical exercises in the operation and repair of the Mk 9 Mod 4 dead-reckoning analyzer-indicator and the Mk 6 Mod 4B dead-reckoning tracer, including review of the 3-M system, synchros, control transformers, resolvers, servo loops, and test equipment, operation of the specified equipment, components and functional analysis of circuits, block-diagram analysis, and troubleshooting and preventive maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0345

Electronics Technical Officer, Class O

Course Number: None.

Location: Air Technical Training Center, Memphis, TN.

Length: 52 weeks (2,080 hours).

Exhibit Dates: 9/57–12/68.

Objectives: To provide a basic engineering education to career Naval officers with extensive high-level Technician backgrounds.

Instruction: Course covers the basic mathematics, physics, and electricity required for an understanding of electrical or mechanical engineering.

Credit Recommendation: In the vocational certificate category, 9 semester hours in mathematics, 9 in electronic circuit theory, 6 in electrical circuit theory, 6 in physics, 3 in basic science, and 3 in electricity and electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in electronic circuit theory, 6 in mathematics, 6 in physics, 6 in basic electrical theory, and 3 in electricity and electronics laboratory (7/74); in the upper-division baccalaureate category, 4 semester hours in mathematics, 4 in physics, 2 in technical writing, and 15 as an elective in engineering (12/68).

NV-1715-0346

P-3 AN/ARC-52 UHF Communications Systems Maintenance, No. 21

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (96 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel who have completed a course in transistor fundamentals to maintain the AN/ARC-52 UHF communicatons system of the P-3 aircraft.

Instruction: Lectures and practical exercises in the maintenance of the AN/ARC-52 UHF communication system of the P-3 aircraft, including power circuits, control system, components and operation, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0347

E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance

Course Number: C-150-3473.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel who have had previous training in basic avionics and digital fundamentals to maintain the E-2A digital data communication system (AN/ASW-14A).

Instruction: Lectures and practical exercises in the latest maintenance procedures for the AN/ASW-14A digital data communication system, including special equipment; theory of operation; circuit analysis; programming; power supply; reply input, data storage, and output; radio receiver and transmitter components; and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0348

E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance

Course Number: C-150-3474.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 9 weeks (360 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel who have backgrounds in digital fundamentals to maintain the programming test console.

Instruction: Lectures and practical exercises in the maintenance and operation of the programming test console, including theory of operation, block diagrams of components, programming routines, programming test group theory, power distribution, analysis of specialized equipment components, various logic systems, timers, programmer-analyzer components and function, and module test sets.

Credit Recommendation: In the vocational certificate category, credit in computers on the basis of institutional evaluation (3/74).

NV-1715-0349

E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel who have had previous training or experience in avionics, computer detector maintenance, and digital fundamentals to operate computer detector semiautomatic check-out equipment.

Instruction: Lectures and practical exercises in the operation and theory of the computer detector semiautomatic check-out equipment, including equipment functions, basic components, power supply, timing and message registers, confidence tests and switching, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0350

AN/AWG-10 Receiver, Intermediate Maintenance
(F-4J AN/AWG-10 Receiver Intermediate Maintenance)

Course Number: C-102-3812.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 5–6 weeks (200–240 hours).

Exhibit Dates: 7/68–Present.

Objectives: To train maintenance personnel to maintain the receiver portion of AN/AWG-10 missile control systems.

Instruction: Lectures and practical exercises in receiver circuitry, receiver waveguides, IF amplifiers, clearance trackers, signal computers, test sets, and maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0351

AN/ARC-27 UHF Radio Set Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 2 weeks (64 hours).

Exhibit Dates: 6/70–Present.

Objectives: To train maintenance personnel to operate and maintain the AN/ARC-27 UHF radio set.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ARC-27 UHF radio set, including theory of operation, various circuits, power distribution, alignment, and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0352

Electrical/Electronics Fundamentals, Class P

Course Number: None.

Location: Class P Aviation Fundamentals School, Norman, OK; Class P Aviation Fundamentals School, Jacksonville, FL.

Length: 4–6 weeks (162–240 hours).

Exhibit Dates: 6/56–6/59.

Objectives: To teach nonrated naval aviation personnel and some fleet personnel the fundamentals of electricity and electronics.

Instruction: Lectures and practical exercises in the fundamentals of electricity and electronics, including basic mathematics to elementary trigonometry, basic physics, AC and DC electrical theory, basic magnetism, and instruments.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electricity or electronics (3/74).

NV-1715-0353

Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer

Course Number: A-121-0288; F-121-083.

Location: FBM Submarine Training Center, Charleston, SC.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted personnel to operate the Mk 88 digital control computer.

Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 88 digital control computer, including memory, arithmetic, control, and input/output sections (covered at a detailed logic level); and machine language, programs, subroutines, and preventive maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in computer laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in computer laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in computer laboratory on the basis of institutional evaluation (3/74).

NV-1715-0354

1. Photographic Electronics Systems, Class C
2. Photographic Electronics Systems, Class C
   (Camera Repair, Class C)

Course Number: C-670-2011.

Location: Air Technical Training Center, Pensacola, FL.

Length: *Version 1:* 9–12 weeks (376–476 hours). *Version 2:* 15–19 weeks (600–760 hours).

Exhibit Dates: *Version 1:* 11/68–Present. *Version 2:* 6/57–10/68.

Objectives: To train photographer's mates to operate, test, and maintain electronically operated photographic equipment.

Instruction: Lectures and practical exercises in analysis of circuits and systems in photographic equipment, including basic mathematics, DC and AC circuits, electromechanical equipment, vacuum tubes, transistors, test equipment, photographic laboratory equipment, basic camera control equipment, and aerial camera control equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (3/74); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (3/74). *Version 2:* In the vocational certificate category, 12 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (3/74).

NV-1715-0355

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37

Course Number: A-113-0023.

Location: Service Schools Command, Bainbridge, MD; Service Schools Command, Great Lakes, IL.

Length: 13–15 weeks (376–450 hours).

Exhibit Dates: 2/68–10/75.

Objectives: To train fire control technicians with shipboard experience to operate, maintain, and repair the Mk 37 gun fire control system at an advanced level.

Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 37 gun fire control system, including power drives and maintenance management of the director; theory, construction, operation, and maintenance of the stable element; electronics and related radar instruction; analog computer theory, construction, and maintenance; and components and circuitry of the specified equipment.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0356

Communications Receiver Site Systems Maintenance, Class C1

Course Number: A-101-0070.

Location: Service School Command, Great Lakes, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 4/74–Present.

Objectives: To train personnel to operate, maintain, troubleshoot and repair specific communications equipment.

Instruction: Areas of instruction include the use of special test equipment (spectrum analyzer, RF and AF generators and other equipment) to test, align and repair multiplexed communications hardware including telephone, radio and microwave channels.

Credit Recommendation: In the vocational certificate category, 3 semester hours in radio electronics and 2 in radio electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in radio electronics (9/77).

NV-1715-0357

RF-4B AN/ASQ-88 and AN/ASQ-108 Communication Navigation Identification (CNI) Line Troubleshooting Maintenance

Course Number: C-102-3841.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train maintenance personnel to maintain specific electronic/radio equipment in the RF-4B aircraft.

Instruction: Lectures and practical exercises in the maintenance of electronic and radio equipment in the RF-4B aircraft system, including analysis of operation; communications systems components; navigation and identification equipment; integration of aircraft, CNI, and electronic systems; and practical applications of line maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0358

P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance

Course Number: C-102-3597.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train maintenance personnel to operate, calibrate, and maintain the AN/AXR-13 low-light-level television camera.

Instruction: Lectures and practical exercises in the operation, calibration, and maintenance of the AN/AXR-13 low-light-level television camera, including block-diagram analysis, test equipment, system circuit analysis, components, power supply, and assembly.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0359

AN/APN-171 (V) Radar Altimeter (High Level) Intermediate Maintenance

Course Number: C-102-3036.

Location: Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel to service and maintain the AN/APN radar altimeters.

Instruction: Lectures and practical exercises in pulse radar maintenance procedures, including theory and analysis of various circuits and working components of the AN/APN radar altimeter.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0360

AN/APM 341 (V) Doppler Test Set Intermediate Maintenance

Course Number: C-104-3786; C-102-3800.

Location: Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Lemoore, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 12/72–Present.

Objectives: To train selected personnel to operate, maintain, and troubleshoot the AN/APM 341 (V) Doppler test set.

Instruction: Lecture and practical exercises in maintenance procedures for the AN/APM 341 (V) Doppler test set, including instruction on logic concepts, radar signal simulator and spectrum analyzer, microwave converter and digital readout monitor, standing-wave ratio meter, and quick-replaceable assemblies.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0361

EKA-3B AN/ALQ-92 Countermeasures Set Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (240 hours).

Exhibit Dates: 12/69–Present.

Objectives: To train electronics maintenance personnel to maintain and operate the AN/ALQ-92 electronic countermeasures set.

Instruction: Lectures and laboratories in AN/ALQ-92 countermeasures set operation, including transmitter, receiver modulator, relay assembly, and display unit; and laboratory procedures, including performance test, trouble analysis, functional checkout and alignment procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0362

F-4B Airborne Missile Control System AERO 1-A Organizational Maintenance

Course Number: C-112-3611; C-112-3809; C-112-12.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 5–9 weeks (200–360 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain and service Aero 1-A airborne control systems.

Instruction: Lectures and practical exercises in systems familiarization, test equipment, and maintenance procedures, including instruction on AN/APQ-72 low-voltage power supplies, transmitters, electrical frequency controls, receiver and automatic gain controls, range tracking system, transmitter and synchronizer harmonization, vertical reference system, antenna, power supply, indicators, and guns; AN/APM-32 and AN/UPM-32 radar test sets; and AN/APA-157 block-diagram analysis, transmitter, modulator, steering functions, and launch functions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0363

A3B ASB-7 RADAR STABILIZATION AND AUXILIARY SUBSYSTEMS MAINTENANCE (LESS CP-209 AND AN/APN-122)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain ASB-7 radar, stabilization, and auxiliary systems.

Instruction: Lectures and practical exercises in operational procedures; bombing and navigational problems; stabilization subsystems and associated servo loops; optics, periscopes, and photography; radar theory and application; and maintenance and systematic troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0364

ELECTRONICS TECHNICIAN, CLASS C, AN/SPN-38 LORAN RECEIVING SET MAINTENANCE

Course Number: A-102-0083.

Location: Electronics Technician, Class C School, Norfolk, VA.

Length: 5 weeks (150 hours).

Exhibit Dates: 8/71–Present.

Objectives: To train enlisted personnel to operate and maintain the AN/SPN-38 Loran receiver.

Instruction: Lectures and laboratories in Loran receiver principles, controls, operation, and maintenance, including AC and DC power distribution and control circuits; circuit and block-diagram analysis; slave trigger, strobe-pulse, and gross-delay generators operation; logic control section and logic analysis; and alarm, indicator, and self-check sections operation and maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0365

F-8 AN/APQ-94 RADAR INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Jacksonville, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel who have completed a course in transistor fundamentals to maintain the AN/APQ-94 radar system and associated equipment.

Instruction: Lectures and practical exercises in the maintenance of the AN/APQ-94 radar system and associated equipment, including power supplies, block diagrams of systems, theory of operation, test set operation, component analysis, various computer subsystems, antenna and antenna control and instrumentation, and system alignment, hazards, and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0366

RA-5C AN/ALQ-61 PASSIVE ELECTRONICS COUNTERMEASURES ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3746.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/69–Present.

Objectives: To train maintenance personnel to operate and maintain the AN/ALQ-61 passive electronics countermeasures set.

Instruction: Lectures and practical exercises in the maintenance and operation of the AN/ALQ-61 passive electronics countermeasures set, including antennas and receivers at various bands, frequency and direction encoders, pulse measurement, programmer, power distribution, circuits, and associated test sets.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74), in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0367

RA-5C AN/ALQ-61 COUNTERMEASURE SET SHOP MAINTENANCE

Course Number: C-102-3745.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to operate, maintain, and service AN/ALQ-61 passive electronic countermeasures sets and to perform shop maintenance.

Instruction: Lectures and laboratories in the operation and maintenance of receivers, frequency encoders, direction encoders, programmers, coded-pulse detectors, and signal data recorders.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0368

RF-4B AN/ARC-105 HIGH FREQUENCY COMMUNICATION SYSTEM AND RO-254/ASQ SOUND RECORDER MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel to maintain, troubleshoot, and repair AN/ARC-105 high-frequency communications systems and RO-254/ASQ sound recorders.

Instruction: Lectures and laboratories in theory of operation and maintenance procedures for receivers and transmitters, antenna coupler systems, and sound recorders; circuit analysis; block diagrams; and signal flow.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0369

RT-648/ARC-94 AND RT-698/ARC-102 HF TRANSCEIVER INTERMEDIATE MAINTENANCE

Course Number: C-102-3026.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Cp. Pendleton, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/71–Present.

Objectives: To train maintenance personnel to maintain and repair high-frequency transceivers at the intermediate maintenance level.

Instruction: Lectures and laboratories in single-sideband characteristics, power supply, system block-diagram analysis, circuit analysis, operating procedures, performance testing, system alignment, system troubleshooting, and component repair.

Credit Recommendation: In the vocational certificate category, 3 semester hours in HF electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in HF electronics (3/74); in the upper-division baccalaureate category, 1 semester hour in HF electronics (3/74).

NV-1715-0370

A-6A AN/ASQ-57 COMMUNICATION, NAVIGATION, IDENTIFICATION (CNI) SYSTEM AND AN/AIC-14 INTERCOMMUNICATIONS SYSTEM INTERMEDIATE MAINTENANCE

(A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance)

Course Number: C-102-3766; C-102-228.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 7 weeks (280–320 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to operate, maintain, and test AN/ASQ-57 integrated electronic central and AN/AIC-14 intercommunications systems.

Instruction: Lectures and practical exercises in system familiarization, power supplies, amplifiers, transceiver electronics, alignment procedures, shop testing, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (3/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (3/74).

NV-1715-0371

F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train maintenance personnel to operate and maintain the electronic counter-countermeasures circuitry of AN/AWG-10 missile control systems.

Instruction: Lectures and laboratories in pulse Doppler circuitry, radar circuitry, antenna control, waveform and voltage analysis, system familiarization, and maintenance and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74).

NV-1715-0372

Radio Aids Unit (Device 1-D-5), Class C

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 5 weeks (200 hours).

Exhibit Dates: 12/55–12/68.

Objectives: To train enlisted personnel to operate, maintain, and instruct other personnel on radio aids units.

Instruction: Lectures and practical exercises in theory, operation, maintenance, and troubleshooting of radio aids units.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0373

RT 648/698 (AN/ARC-94/102/105/119/120) HF Transceiver Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Cp. Pendleton, CA; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, New River, NC.

Length: 4 weeks (120 hours).

Exhibit Dates: 5/70–Present.

Objectives: To train maintenance personnel to maintain RT 648/698 HF transceivers at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of RT 648/698 HF transceivers, including principles of single-sideband communications, system and subsystem components, test equipment, various translator modules, circuit analysis, and system alignment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in circuit analysis or electronics (3/74).

NV-1715-0374

P-3 AN/ARC-94 Communications System Maintenance, No. 19

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain the AN/ARC-94 transceiver in the P-3 aircraft.

Instruction: Lectures and practical exercises in the maintenance of the AN/ARC-94 transceiver in the P-3 aircraft, including block-diagram and circuit analysis, various translator modules within the system, stabilizers, power supplies, antenna operation, and associated test sets.

Credit Recommendation: In the vocational certificate category, 2 semester hours in circuit analysis or electronics (3/74).

NV-1715-0375

E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train maintenance personnel to maintain and troubleshoot the E-2A integrated electronic central TACAN and related power supply equipment at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the E-2A integrated electronic central TACAN and related power supply equipment, including theory of operation, circuit analysis, system components, and instruction in amplifiers, receivers, three-phase bridge rectifier circuits, AC power distribution, modulation, and transmitter circuits.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74).

NV-1715-0376

E-2A Integrated Electronic Central (AN/ASQ-58) Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain E-2A integrated electronic controls (AN/ASQ-58).

Instruction: Lectures and practical exercises in the maintenance of E-2A integrated electronic controls (AN/ASQ-58), including system components, theory of operation; receiver, transmitter, power distribution, coder, and relay module circuit analysis; TACAN principles of operation and circuit analysis, specific IFF interrogator equipment analysis, and relations between systems equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0377

E-2A AN/ASQ-58 Integrated Electronic Central IFF—KY-308/ASQ and Power Supply—AM-2310/ASQ Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train maintenance personnel to maintain the E-2A IFF KY-308/ASQ integrated electronic central and the AM-2310/ASQ power supply at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of E-2A IFF KY-308/ASQ integrated electronic central and AM-2310/ASQ power supply, including theory of operation, system components, power supply, receiver, power distribution, transmitter, and decoder circuits, and alignment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74).

NV-1715-0378

Radio Transmitting Set AN/URT-23 (V) Maintenance (Enlisted)

Course Number: F-101-025.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train maintenance personnel to operate and maintain the AN/URT-23 (V) radio transmitting set and the AN/URA-38 antenna coupler group.

Instruction: Lectures and practical exercises in the maintenance and operation of the AN/URT-23 (V) radio transmitting set and the AN/URA-38 antenna coupler group, including circuit analysis, block diagram and signal flow, amplifiers, oscillators, keying circuits, power supplies, theory of operation, power distribution, review of specific radio equipment, and transmitting set alignment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (3/74).

NV-1715-0379

E-2A Multi-Purpose Communications System (AN/ASQ-52) Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 10 weeks (400 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel with knowledge of or aptitude in avionics to operate and maintain the AN/ASQ-52 multipurpose communications system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ASQ-52 multipurpose communications system, including instruction in electronic controls in the transceiver, power supply, electronic radio frequency circuits, control section, Doppler and synchronization circuits, IFPM circuits, servo controls, and associated test sets.

Credit Recommendation: In the vocational certificate category, 7 semester hours in electronics or radio (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics or radio (3/74).

NV-1715-0380

1. Avionics Technician (AV), Class A
2. Avionics Technician, Class A
3. Avionics Fundamentals, Class A
4. Avionics Fundamentals, Class A
5. Aviation Electronics Fundamentals, Class A

Course Number: C-100-2013.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 10–20 weeks (800 hours). *Version 2:* 20 weeks (800 hours). *Version 3:* 14–16 weeks (560–640 hours). *Version 4:* 19 weeks (760 hours). *Version 5:* 15 weeks (600 hours).

Exhibit Dates: *Version 1:* 6/72–Present. *Version 2:* 7/69–5/72. *Version 3:* 6/65–6/69. *Version 4:* 3/60–5/65. *Version 5:* 5/58–2/60.

Objectives: To provide enlisted Navy and Marine Corps personnel with training in electronics fundamentals.

Instruction: *All Versions:* Lectures and laboratories in DC and AC electrical fundamentals, semiconductor theory and circuit applications, analog and digital computer fundamentals, and maintenance publications and procedures. *Version 1:* Primarily transistor electronics, including block-diagram and circuit analysis. There was a 'Rapid Learner Section' (fast track) offered as an accelerated program. Course content was condensed into 10 weeks. *Version 2:* Shifts from vacuum tube to solid-state circuitry. *Version 3:* Primarily vacuum tube electronics. *Version 4:* Primarily vacuum tube electronics. *Version 5:* Primarily vacuum tube electronics.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in electronics and electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in electronics and electronic circuits (3/74). *Version 2:* In the vocational certificate category, 12 semester hours in electronics and electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics, 4 in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronics and electronic circuits (3/74). *Version 3:* In the vocational certificate category, 12 semester hours in electronics and electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronics and electronic circuits (3/74). *Version 4:* In the vocational certificate category, 12 semester hours in electronics and electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics, 4 in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronics and electronic circuits (3/74). *Version 5:* In the vocational certificate category, 12 semester hours in electronics and electronic circuits (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in electronic circuits (12/68); in the upper-division baccalaureate category, 3 semester hours in electronics and electronic circuits (3/74).

NV-1715-0381

Control Panel Mk 309 Mod 0 Operation and Maintenance

Course Number: A-130-0099.

Location: Fleet Antisubmarine Warfare Training Center, Pacific, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 5/77–Present.

Objectives: To train selected personnel to operate and maintain the control panel aboard Coast Guard and Naval units.

Instruction: Lectures and laboratories in introduction to the Mk 309 Mod 0 control panel, its operation, functional and detailed description, preventive and corrective maintenance, and alignment and adjustment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (6/78).

NV-1715-0382

E-2A AN/ASQ-52 Data Communication System Special Support Equipment Intermediate

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 4/68–Present.

Objectives: To provide maintenance personnel who have completed an intermediate data communications maintenance course with training in data communications system special support equipment, including theory of operation, alignment, and operational procedures.

Instruction: Lectures and practical exercises in functions, block diagrams, modes of operation, power supplies, and preventive maintenance of signal data convertors; functions, block diagrams, radio transmitters and receivers block diagram and circuits, logic elements, message generation, data modulation, tone level and audio adjustments, frequency synthesizers, response and analysis modules, RC correlation, and comparison and control modules of line test sets; and maintenance and testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0383

A-4F/L/TA-4F Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance

Course Number: C-102-3718.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train maintenance personnel to troubleshoot and maintain Communication Navigation Identification (CNI)/weapons systems.

Instruction: Lectures and practical exercises in CNI systems used on A-4F aircraft; intercom systems and UHF communication system hardware; navigation systems, radar altimeters, and Doppler radar; high-altitude radar identification (IFF) systems; and troubleshooting, calibration, and testing procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0384

Advanced Fire Control System (FCS) Mk 106 Mod 5

Course Number: A-113-0037.

Location: Submarine School, Groton, CT.

Length: 5 weeks (165 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train fire control technicians to maintain Mk 106 Mod 5 fire control systems and associated equipment.

Instruction: Lectures and practical exercises in troubleshooting and maintenance techniques for torpedo data computer, sound bearing computers, target designation systems, and depth, enabling, and station control circuits.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0385

Data Systems Technician, Class C, Weapon Direction System Mk XI Mod 0/1 Maintenance Training

Course Number: A-150-0059.

Location: Naval Schools Command, Mare Island, CA.

Length: *Version 1:* 10 weeks (300 hours). *Version 2:* 4 weeks (120 hours).

Exhibit Dates: *Version 1:* 7/71–Present. *Version 2:* 11/70–6/71.

Objectives: To train enlisted personnel to operate and maintain weapon direction systems.

Instruction: Lectures and laboratories in system familiarization, isolation and repair of malfunctions, and utilization of tools and test equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in troubleshooting and hand skills (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in troubleshooting and hand skills (4/74). *Version 2:* In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (3/74).

NV-1715-0386

SH-3 AN/AQS-13 Sonar Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 8/67–Present.

Objectives: To train avionics maintenance personnel to maintain and repair the AN/AQS-13 sonar.

Instruction: Lectures and laboratories in sound and semiconductor theory, cathode ray tubes, and the theory of operation of the AN/AQS-13 sonar.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0387

Communications Transmitter Site Systems Maintenance, Class C1

Course Number: A-101-0069.

Location: Service School Command, Great Lakes, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 10/73–Present.

Objectives: To train personnel to operate and maintain specific communications systems.

Instruction: Lectures and practical exercises in the operation and maintenance of equipment including microwave radio assemblies, transmitter fundamentals, microwave multiplexing, telephone terminals, telegraph terminals, and multichannel telegraph.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communications equipment troubleshooting (9/77).

NV-1715-0388

AN/ASN-90 Inertial Measurement Set Intermediate Maintenance
(A-7 AN/ASN-90 Inertial Measurement Set Intermediate Maintenance)

Course Number: C-102-3788.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 4 weeks (152-160 hours).

Exhibit Dates: 9/71-Present.

Objectives: To train enlisted personnel who have had previous training in digital fundamentals and electronics to maintain, assemble, and troubleshoot inertial measurement equipment, using semiautomatic and automatic testing procedures.

Instruction: Lectures and practical exercises in functional operation of AN/ASN-90 inertial measurement sets, controllers, adapter/power assemblies, and inertial measurement units; test and calibration procedures; and fault isolation techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0389

Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9-12

Course Number: A-130-0060.

Location: Fleet Sonar School, Key West, FL.

Length: 3 weeks (105 hours).

Exhibit Dates: 4/68-Present.

Objectives: To train enlisted personnel to operate and maintain Mk 60 Mod 0 relay transmitters.

Instruction: Lectures and laboratories in block-diagram and circuit analysis and system operation and maintenance procedures, with emphasis on system test functions. A highly specialized equipment course.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0390

AN/WPN-4 Maintenance

Course Number: F-102-014.

Location: Submarine School, Groton, CT.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/67-Present.

Objectives: To train enlisted personnel to operate and maintain the AN/WPN-4 Loran C receiving set.

Instruction: Lectures and laboratories in AN/WPN-4 Loran C receiver fundamentals; system components and operation, including data flow, indicator subassembly, delay switches and network pulse delay, pulse generator, and cycle, envelope and amplitude, and guard and signal-monitoring channels; use of schematics and technical manuals; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (4/74).

NV-1715-0391

Terrier Mark 152 Computer Complex

Course Number: A-150-0085.

Location: Guided Missiles School, Dam Neck, VA.

Length: 9 weeks (360 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train enlisted personnel to operate and maintain missile fire control equipment and electronic test equipment.

Instruction: Lectures in fire control system functions and characteristics; fire control computer turn-on, load, and turn-off procedures; interface requirements and word formats; digital data recorder, master clock, and digital control; logic flow of writing operations and data flow of read operations; input/output control and operation; signal data conversion; A/D and D/A converters; dual-trace oscilloscopes operation; magnetic tape storage elements; and operation and use of digital clocks, digital voltmeters, AC/DC differential voltmeters, VOMs, VTMs, and electronic counters.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics, digital logic, and electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, digital logic, and electronics laboratory (4/74); in the upper-division baccalaureate category, credit in electronics, digital logic, and electronics laboratory on the basis of institutional evaluation (4/74).

NV-1715-0392

Read Only Memory (ROM) Encoder Elevator Control Maintenance, Class C1

Course Number: A-690-0018.

Location: Service School Command, Great Lakes, IL.

Length: 2 weeks (67 hours).

Exhibit Dates: 7/77-Present.

Objectives: To familiarize trained personnel in the operation and troubleshooting techniques needed for a computer controlled elevator system.

Instruction: Instruction includes the operation of the elevator control system, troubleshooting techniques in a digital PDP-14 computer and component replacement in the computer.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer servicing (9/77).

NV-1715-0393

F-4B/J-RF-4B AN/ALQ-88 Countermeasures Set Intermediate Maintenance

Course Number: C-102-3071.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train fleet maintenance personnel to operate, troubleshoot, and repair the F-4B/J-RF-4B AN/ALQ-88 countermeasures set.

Instruction: Lectures and practical exercises in AN/ALQ-88 countermeasures set operation, troubleshooting, and repair, including logic review, DECM principles and techniques, theory of operation, block diagram, power control and power supply, various components assembly procedures, hydraulic cooling unit operation, and test equipment usage.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0394

F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/71-Present.

Objectives: To train enlisted personnel who have backgrounds in electronics to troubleshoot, maintain, and repair TACAN aircraft navigation equipment.

Instruction: Lectures and practical exercises in TACAN system introduction, principles of operation, block-diagram analysis, and frequency selector control system operation; pulse decoder operation, decoding procedures, and circuits; and TACAN maintenance, circuit troubleshooting, and bench check-out procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0395

F-4J Shoehorn Organizational Maintenance

Course Number: C-102-3819.

Location: Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA.

Length: 3-5 weeks (120-200 hours).

Exhibit Dates: 8/70-Present.

Objectives: To train fleet maintenance personnel to install, remove, and service aircraft electronic countermeasures equipment.

Instruction: Lectures and practical exercises in F-4J Shoehorn electronic countermeasures equipment installation, removal, and servicing, including radar homing and warning equipment and power sources, ALQ-51/100 and ALQ-91A countermeasures sets and associated circuits, aircraft ECM systems locations and operational checks, and system maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0396

Tartar Radar Test Set Mk 474 Mod 2

Course Number: A-104-0112; A-104-0113.

Location: Guided Missiles School, Dam Neck, VA; Guided Missiles School, Mare Island, CA.

Length: 3 weeks (74 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train enlisted personnel to operate the Mk 474 test set.

Instruction: Lectures and practical exercises in Mk 474 test set operation, including functional block diagram; systems dynamic tester introduction; angle error circuits, pulse delay network, target modulator, and countermeasures signal simulator operation; and system flow diagram review, tuning, and adjustment procedures.

Credit Recommendation: No credit because of the limited technical nature of the course (4/74).

NV-1715-0397

Cable Tester Alfred Model 9500 Intermediate Maintenance

Course Number: C-102-3058.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Miramar, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fleet maintenance personnel to maintain and repair the Alfred Model 9500 cable tester.

Instruction: Lectures and practical exercises in basic transmission principles; cable tester circuit analysis; and system maintenance procedures, including testing, alignment and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0398

Terrier Computer Mk 100 Mod 2

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 20 weeks (600 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train enlisted personnel to maintain the Mk 100 Mod 2 Terrier missile weapon system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 100 Mod 2 Terrier missile system, including fire control system function, operational sequence of launching system, control computer, power distribution circuits, computer amplifiers, controls and indicators, test equipment use, basics of analog computers, servomechanisms, summing operation in analog computer, associated equipment in deck-tilt and radar position modes, shipboard and shore fire control, and troubleshooting of computer and weapons director circuits.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0399

RF-4B AN/APQ-102 Side Looking Radar Intermediate Maintenance

Course Number: C-100-3831.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: *Version 1:* 9 weeks (360 hours). *Version 2:* 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 8/70–Present. *Version 2:* 1/68–7/70.

Objectives: To train maintenance personnel to maintain, service, and troubleshoot AN/APQ-102 (A) side-looking radar.

Instruction: *All Versions:* Lectures and practical exercises in side-looking radar system introduction; subsystems operation; synchronizer block-diagram analysis, receiver block-diagram analysis, and RF and IF circuits theory; video and AGC circuits; antenna system theory of operation; practical applications, maintenance, and troubleshooting procedures. *Version 1:* Instruction includes recorder operation and built-in test and power supply theory and analysis.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0400

Cryptologic Technician A (Administration)—Class A

(Communications Technician Administration Branch Class A)

Course Number: A-510-0015.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 8 weeks (Average 259 hours).

Exhibit Dates: 4/75–Present.

Objectives: To provide the basic knowledge of job skills and professional qualifications required for performance in the administrative and personnel fields.

Instruction: This is a self-paced individualized learning system course which includes the following: knowledge of security for classified matter, safeguards and procedures; understanding of the Organization for National Security, Naval Establishment, Naval Communications, Naval Security Group Command; instruction in typing to a speed of at least 30 net words per minute, general clerical duties, operation of office machines and related functions necessary to perform in an administration, personnel, facilities, operation, and communications environment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in office practice and 2 in typewriting (9/78); In the lower-division baccalaureate/associate degree category, 1 semester hour in written communication (9/78).

NV-1715-0401

Radarman, Class A, Basic Preventive Maintenance and Operators

Course Number: Not available.

Location: Class A Radarman School, Great Lakes, IL; Class A Radarman School, Norfolk, VA.

Length: 24 weeks (960 hours).

Exhibit Dates: 9/56–12/68.

Objectives: To train enlisted personnel to maintain, and determine the operational readiness of, radar equipment.

Instruction: Lectures and practical exercises in the maintenance of radar equipment, including combat information center functions, surface search radar and associated remote repeaters, air search and altitude-determining radars and associated remote repeaters, operational procedures of information friend-or-foe (IFF) equipment, shipboard radar countermeasures equipment, airborne early warning radar equipment, internal communications, air plotting, relative motion and the maneuvering board, formation plotting and tactics, radar navigation and remote repeater operation and plotting.

Credit Recommendation: In the vocational certificate category, credit in electricity or electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0402

Radar Signal Processing Equipment (RSPE) Maintenance

Course Number: K-113-2033.

Location: Fleet Training Center, San Diego, CA.

Length: 4 weeks (114–120 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fire control technicians to maintain the radar signal-processing equipment associated with specific radar systems.

Instruction: Lectures and practical exercises in the maintenance of radar signal-processing equipment, including operating modes of the equipment, IF detection and amplification, video processing, jamming detection, automatic range acquisition and tracking, logic circuits, systems readiness checks, adjustments and fault isolation.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0403

Radar Signal Processing Equipment (RSPE) Maintenance Mk 1 and Mods

Course Number: J-113-0111; J-113-1112.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 7 weeks (245 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fire control technicians to operate and maintain specific radar signal processing equipment (RSPE).

Instruction: Lectures and practical exercises in the operation and maintenance of radar signal processing equipment Mk-l and Mods, including fundamentals of solid-state diodes, transistors, and logic theory; RSPE operating modes; IF detection and amplification; jamming detection, automatic range and angle acquisition and tracking, electronic counter-countermeasures, system interfacing, system readiness, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electricity or electronics, and credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0404

Sonar AN/SQS-38 Maintenance (USCG)

Course Number: A-130-0071.

Location: Fleet Anti-submarine Warfare Training Center, San Diego, CA; Fleet Sonar School, Key West, FL.

Length: 10 weeks (388–400 hours).

Exhibit Dates: 1/73–Present.

Objectives: To train Coast Guard sonarmen to maintain, calibrate, and operate the AN/SQS-38 sonar, the WQC2 underwater telephone, and associated equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SQS-38 sonar set, WQC2 underwater telephone, and built-in test equipment, including special circuits, power supplies and distribution, transmission signal development; transmitter modules, transducers, and transducer switching; and receiving subsystem, including classification, position-indicator system timing and deflection circuitry, primary cursor generation, and servos.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0405

SONAR AN/SQS-26CX AND AN/SQS-53 MAINTENANCE

(Sonar AN/SQS-26CX Maintenance)

(Sonar Detecting-Ranging Set AN/SQS-26CX)

Course Number: A-130-0102; A-130-0047; A-130-0048; J-130-0865.

Location: Fleet Sonar School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 24–30 weeks (798–900 hours).

Exhibit Dates: 1/69–Present.

Objectives: To train enlisted personnel to operate, maintain, troubleshoot, and repair the specified sonar detecting-ranging equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SQS-26CX and, beginning February 1977, the AN/SQS-53 sonar detecting-ranging set, including binary mathematics and logic, test equipment, modes of operation, sound propagation, primary power distribution, sonar monitor, block diagrams, fault-locating monitor, mode selection and generation, simulated targets and target control, surface duct programmer and transmitter, B-scan receiver and display, various circuits, variable depression components, range measuring and servos.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic troubleshooting (8/77).

NV-1715-0406

A-6 ASSOCIATED RADAR TEST EQUIPMENT INTERMEDIATE LEVEL MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 8 weeks (320 hours).

Exhibit Dates: 5/70–Present.

Objectives: To train maintenance personnel to operate, troubleshoot, and maintain search radars and associated test equipment.

Instruction: Lectures and laboratories in theory of operation and system functions of radar set controls, azimuth/elevation/range indicators, search radar antenna/receivers, and data processing units.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0407

CLOSED CIRCUIT TELEVISION MAINTENANCE, CLASS C1

Course Number: A-198-0025.

Location: Service School Command, Great Lakes, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/74–Present.

Objectives: To provide detailed instruction in the components of closed circuit television and to train personnel in operation and corrective maintenance.

Instruction: Demonstrations in parts identification and operation of the closed circuit television system utilizing a small amount of test procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in closed circuit television (9/77).

NV-1715-0408

A-7 AN/APQ-116 RADAR SET INTERMEDIATE MAINTENANCE

Course Number: C-104-3782.

Location: Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Lemoore, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/68–Present.

Objectives: To train maintenance personnel to operate, maintain, service, and repair AN/APQ-116 radar sets.

Instruction: Lectures and laboratories in AN/APQ-116 radar set familiarization, security, radiation hazards, and special circuits; transmitter circuit analysis, power supplies, antenna systems, and trans mitter modules; general component theory; receiver circuit analysis, antenna receivers, command computers, and alarm monitors; display analysis, sweep generators, and indicator systems; and system maintenance, troubleshooting procedures, and performance testing.

Credit Recommendation: In the vocational certificate category, credit in electricity and electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity and electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0409

F-4J AN/ARN-86 TACAN INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/69–Present.

Objectives: To train fleet maintenance personnel to operate, troubleshoot, maintain, repair, and modify AN/ARN-86 TACAN navigation systems.

Instruction: Lectures and laboratories in introduction to AN/ARN-86 systems, including power supplies and distribution, block-diagram analysis, transmit-receive RF operations, IF amplifiers, and channel servo operations; video decoders, AGC and ID tone circuits, and 15-cycle and 135-cycle bearing circuits; interrogation, reference, and reply circuitry; and intermediate maintenance, range and antenna circuitry, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, credit in electricity and electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity and electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity and electronics on the basis of institutional evaluation (3/74).

NV-1715-0410

WEAPON SYSTEM SPECIALIST (CREW LEADER) MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train crew members to maintain aircraft weapon control systems.

Instruction: Lectures and practical exercises in weapon control systems functional analysis, including data transmission, power subsystems, radar and infrared systems, and computer controls and display systems; weapons and avionics functional analysis; modes analysis, including tactical programs, navigation, air-to-air and air-to-ground modes analysis, data links, and in-flight training; and radar, IP computer, and display maintenance, armament controlling maintenance, and calendar inspection.

Credit Recommendation: In the vocational certificate category, credit in electricity and electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity and electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity and electronics on the basis of institutional evaluation (3/74).

NV-1715-0411

WEAPONS SYSTEMS TECHNICIAN (CREW MEMBER) ORGANIZATIONAL MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 10 weeks (380 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train fleet maintenance personnel to test, troubleshoot, and maintain F-14 weapons systems.

Instruction: Lectures and laboratories in operating modes and functional design of the F-14 system; power, radar, and infrared operation, control displays, and description; computer controls and displays; weapons control system maintenance and calendar inspection and procedures; and aircraft maintenance, weapons systems, and weapon checklists.

Credit Recommendation: In the vocational certificate category, credit in electricity and electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity and electronics on the basis of institutional evaluation (3/74).

NV-1715-0412

FIRE CONTROL SYSTEM (FCS) MK 113 MOD 9 (TORPEDOES AND TARGET MOTION ANALYSIS)

Course Number: A-113-0060.

Location: Guided Missiles School, Dam Neck, VA.

Length: 23 weeks (758 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted personnel to operate, maintain, and test underwater fire control systems.

Instruction: Lectures and laboratories in introduction to Mk 113 Mod 7 underwater fire control systems, terminology, data flow, and power distribution; analog computational devices, synchros, and resolvers; attack directors; attack control consoles; target motion analysis; torpedo control consoles and tone signal generators; weapons simulators and monitor panels; firing and monitoring systems; systems maintenance and operational procedures; target motion subsystems; target motion computers and signal data convertors; and digital interconnecting boxes.

Credit Recommendation: In the vocational certificate category, credit in electricity and electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity and electronics on the basis of institutional evaluation (3/74).

NV-1715-0413

Weapons Direction System (WDS) Mk 7 Mod 3 (Career)

Course Number: A-121-0032.

Location: Guided Missiles School, Dam Neck, VA.

Length: 15 weeks (553 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train fire control technicians in the maintenance and repair of Mk 7 Mod 3 weapons direction systems.

Instruction: Lectures and practical exercises in weapons direction equipment and related power, simulating, sweep generation, video, display, tracking, symbol, data converting, and automatic height-tracking systems; utilization of dual-trace scope, AC/DC differential voltmeters, and digital voltmeters; and system maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics, and credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0414

Weapons Direction System (WDS) Mk 7 Mod 3 (6-Year Obligor)

Course Number: A-121-0032.

Location: Guided Missiles School, Dam Neck, VA.

Length: 20 weeks (759 hours).

Exhibit Dates: 11/70–Present.

Objectives: To train fire control technicians to maintain and repair Mk 7 Mod 3 weapons direction systems.

Instruction: Lectures and practical exercises in weapons direction equipment and related power, simulating, sweep, video, display, tracking, symbol, and data converting systems; introduction to Terrier weapon systems, computer, radar sets, launching systems, and maintenance procedures; and utilization of dual-trace scope, AC/DC differential voltmeter, and digital voltmeter.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0415

RF-4B AN/APQ-99 Forward Looking Radar Intermediate Maintenance

Course Number: C-112-126; C-100-3832.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 6–8 weeks (240–320 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel who have had previous training in transistor and digital computer fundamentals to maintain AN/APQ-99 forward looking radar (FLR) through the intermediate level of maintenance.

Instruction: Lectures and practical exercises in theory of operation and bench procedures for AN/APQ-99 systems; block-diagram analysis of transmitter, receiver, and antenna systems; power supply programmers; radar set control; indicators; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity or electronics (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0416

SSN/CVA Special Technology (Enlisted)

Course Number: F-193-072.

Location: Submarine School, Groton, CT.

Length: 5 weeks (150 hours).

Exhibit Dates: 10/68–4/71.

Objectives: To provide electronics technicians with initial training in the theory and operation of basic components of inertial navigation systems, and to prepare them for advanced studies in digital computer and navigation systems repair.

Instruction: Lectures and laboratories in testing and repair, test equipment, transistor fundamentals, and basic module repair; digital mathematics, numbering systems, arithmetic operations, and coding systems; digital circuits, symbology, switching circuits, gating circuits, computer components, digital counters, timing-shelf registers, adders and subtractors, storage devices, and input/output devices; programming, scaling, coding and addressing, and flow charts; and navigation theory, physics of motion, and inertial navigation system components and synchros.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity or electronics laboratory (3/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics laboratory (3/74); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics laboratory (3/74).

NV-1715-0417

QH-50D Target Control System AN/SRW-4B Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, Mare Island, CA.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain and service AN/SRW-4B target control systems at the intermediate maintenance level.

Instruction: Lectures and practical exercises in target control system familiarization, rotary wing components, and radio transmitting set operation and functional analysis; organizational maintenance utilizing test sets, frequency counters, oscilloscopes, and frequency analyzers; and intermediate maintenance of target control systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0418

QH-50C Target Control System AN/SRW-4B Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain AN/SRW-4B target control system support equipment.

Instruction: Lectures and practical exercises in target control system familiarization; description, location, and operation of transmitter controls; demonstration of radio transmitting sets; functional analysis of amplifier modulators, amplifier frequency multipliers, coders, and power supplies; and intermediate maintenance of target control system test sets, transmitter controllers, and transmitting sets.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (3/74).

NV-1715-0419

Talos Computer Mk 111 Mod 1, Class C

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 16 weeks (465 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain Talos computers.

Instruction: Lectures and practical exercises in Talos weapon systems familiarization; basics of analog computers; and Mk 111 Mod 1 computer components and circuitry, system functioning, physical description, data flow maintenance, intercept display, and evaluation displays.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0420

Sonar AN/SQS-26 Series Sonar Operator Basic

(Sonar AN/SQS-26 AX(R) and CX Operations Basic)

(AN/SQS-26 AXR & CX Operator)

Course Number: A-130-0086; J-130-0875.

Location: Fleet Anti-submarine Warfare Training Center, San Diego, CA; Fleet Sonar School, Key West, FL.

Length: 3 weeks (91–94 hours).

Exhibit Dates: 7/69–Present.

Objectives: To train sonar technicians to operate AN/SQS-26AX(R) & CX sonars.

Instruction: Lectures and practical exercises in system description, modes of operation, performance prediction, and search procedures, and deep-water sound transmission, including physical properties of sea water, acoustic ray theory, reverberations, measurement of sound, and propagation losses.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/77).

NV-1715-0421

Tartar Radar AN/SPG-51B or Radar AN/SPG-51C, Class C

Course Number: A-104-0127.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 24 weeks (720 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train fire control technicians to maintain AN/SPG-51B/C radars.

Instruction: Lectures and practical exercises in Tartar weapons system familiarization, fire control systems, search radar, launching systems, and countermeasures; equipment safety and radar test sets; track radar, block diagrams, Doppler effect, track radar transmitters, power supplies, modulators, power amplifiers, and klystron theory; receiver circuits, spectrum analyzers, and tuning and adjustment of transmitter and receivers; data converters; radar set consoles; casualty analysis specialized test set operation; and Tartar missile guidance systems.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0422

S-2D/E AN/APN-122 Doppler Radar Navigation System Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain, troubleshoot, and repair AN/APN-122 Doppler radar navigation systems.

Instruction: Lectures and practical exercises in Doppler radar theory; power distribution; signal data converters; conversion of beam coordinates to ground speed and drift angles; ground speed computers; vertical reference systems; signal loops; drift angles; location and replacement of malfunctioning components; special test equipment; and system troubleshooting.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0423

Basic Surface Sonar Technician, Class A Core Phase

(Sonar Technician Class A-1 (Surface))
(Surface Sonar Technician, Class A)

Course Number: A-130-0037; A-130-0038; J-130-0505.

Location: Fleet Antisubmarine Warfare School, San Diego, CA; Fleet Sonar School, Key West, FL.

Length: 6–12 weeks (141–228 hours).

Exhibit Dates: 7/72–Present.

Objectives: To train enlisted personnel to operate and use the underwater fire control systems.

Instruction: Lectures and practical exercises in operation and maintenance of underwater fire control systems, including dials and operating controls, input data sources, attack director outputs, functional switches, control panels, stabilization computers, firing panels, relay transmitters, remote repeaters, and underwater fire control systems ancillary equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electronic test equipment (8/77).

NV-1715-0424

RA-5C AN/AYA-1 Signal Data Converter Group Intermediate Maintenance

Course Number: C-100-3746.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to operate, maintain, and service RA-5C signal data converter groups at the intermediate maintenance level and to utilize naval air maintenance training units and appropriate general and special support equipment.

Instruction: Lectures and practical exercises in theory of operation and maintenance of signal data converters, data translators, photo channel data processing, translator tape channels, recording head amplifiers, and optical viewfinders.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0425

AN/UQN-4 Sonar Sounding Set Maintenance

(AN/UQN-4 Echo Sounder Maintenance)
(Sonar Sounding Set AN/UQN-4)

Course Number: A-130-0074; F-130-018.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA; Submarine School, Groton, CT.

Length: 2–3 weeks (60–90 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel with knowledge of sonar and solid-state theory to operate and maintain the AN/UQN-4 sonar sounding set.

Instruction: Lectures and practical exercises in the maintenance of the AN/UQN-4 sonar sounding set, including the 3-M system; computer mathematics and logic; solid-state devices; power supplies; frequency generation and selection circuits; recorder panel assembly and drive motor control; keying and transmitter circuits; pulse generator; remote indicator; keel reference counter, decoder, and clearing control; digital readout, countdown, and storage control circuits; receiver circuits; and troubleshooting and alignment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (11/77).

NV-1715-0426

SSN Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance

(Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance)
(Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance (Enlisted))

Course Number: A-193-0032; F-193-032; F-193-080.

Location: Submarine School, Groton, CT.

Length: 19–25 weeks (570–750 hours).

Exhibit Dates: 4/69–Present.

Objectives: To train electronics technicians to operate, evaluate, and maintain the Mk 3 Mod 6 ship's inertial navigation system.

Instruction: Lectures and practical exercises in tracing electrical and mechanical loops, performing specified checks and tests, Mk 3 Mod 6 systems malfunctions isolation and repair, MINDAC computer familiarization; transistor theory review, analog system components, oscilloscope operation, and computer mathematics.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0427

SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 3 Mod 1

Course Number: A-193-017.

Location: Guided Missiles School, Dam Neck, VA.

Length: 23 weeks (805 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train electronics technicians to operate and maintain type 11 periscope systems, Mk 3 Mod 1 stabilization data computer (SDC), and specific navigation data assimilation computers and control consoles.

Instruction: Lectures and practical exercises in the maintenance of specific periscope systems, stabilization data computers, navigation data assimilation computers and control consoles, including celestial navigation, hydraulic systems, periscope optical system, relay controlled sequencing, complex servomechanism theory, optical monitoring and error determination, general computer principles and programming, circuit analysis, various input and output theories and techniques, and fault isolation.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0428

AN/APQ-124A Radar Set Intermediate Maintenance

(F-8 AN/APQ-124 Radar Intermediate Maintenance)

Course Number: C-102-3855.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 5–6 weeks (200–240 hours).

Exhibit Dates: 9/69–Present.

Objectives: To train fleet maintenance personnel who have had previous training in electronics to maintain the AN/APQ-124A radar set.

Instruction: Lectures and practical exercises in the maintenance of the AN/APQ-124A radar set, including review of basic electronics and circuit analysis and troubleshooting of components; power systems; transmitter; receiver; tracker system; display system; antenna system; and computer system.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74);

in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0429

A-6A Track Radar and Module Analyzer Test Console Intermediate Maintenance
(A-6 Track Radar Module Analyzer Test Console and Detailed Module Theory (Intermediate Level Maintenance))

Course Number: C-150-31.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 10–12 weeks (400–480 hours).
Exhibit Dates: 2/68–Present.
Objectives: To train maintenance personnel to maintain, troubleshoot, and repair modules of the AN/APQ-112 track radar, the AN/APM-225 module analyzer test bench, and the OA-3735/ASM-77 track radar test consoles.
Instruction: Lectures and laboratories in APQ-112 track radar, control and power circuits, receiving and video processing, servo amplifiers and antenna control, module analyzer test console (MATC) circuits, critical-signal generators, data processors, module maintenance, Sace module theory and maintenance, and gyro control and stabilization.
Credit Recommendation: In the vocational certificate category, credit in electronics and electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics and electronics laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electronics and electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0430

F-4B AN/APQ-72 Radar Set Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Miramar, CA.
Length: 5 weeks (200 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train maintenance personnel who have knowledge of airborne missile control systems to maintain the AN/APQ-72 radar set at the intermediate level.
Instruction: Lectures and practical exercises in the maintenance of the AN/APQ-72 radar set, including circuit analysis of low-voltage power supply, transmitter, and electrical frequency control; operational analysis of the equipment; circuit analysis of the receiver; automatic gain control, range track, and relay functions; and troubleshooting of the synchronizer, antenna, and indicating systems control.
Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0431

A-6A AN/APQ-92 Search Radar and Module Analyzer Test Bench Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 13 weeks (520 hours).
Exhibit Dates: 1/70–Present.
Objectives: To train maintenance personnel who have had previous training in basic electronics, transistor fundamentals, and subminiature repair to operate and maintain the AN/APQ-92 search radar and associated search radar and module analyzer test consoles.
Instruction: Lectures and practical exercises in the maintenance and operation of the AN/APQ-92 search radar and associated test consoles, including search radar displays, systems operation; analysis of the control, electrical synchronizer, video processor, azimuth/range/elevation indicator, azimuth/range indicator, and data processor unit; servo electronics unit; transmit circuit; antenna/receiver; terrain clearance processor; and module theory of operation.
Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0432

UH-2A AN/APN-130 Radar Navigation Equipment

Course Number: Not available.
Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Lakehurst, NJ.
Length: 4 weeks (160 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train maintenance personnel to maintain the UH-2A helicopter's navigational system.
Instruction: Lectures and practical exercises in the maintenance of the navigational system of the UH-2A helicopter, including an introduction to Doppler radar, transistor review, power supply, receiver-transmitter, and liquid cooler analysis; hover, auto, and other modes; and system troubleshooting and alignment.
Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0433

Clutter Suppressor and Automatic Alarm for the AN/SPS-10

Course Number: A-104-0132.
Location: Naval Schools Command, San Francisco, CA.
Length: 4 weeks (120 hours).
Exhibit Dates: 6/72–Present.
Objectives: To train electronics technicians who have had previous training or experience in AN/SPS-10 radars, transistor theory, integrated circuit theory, and circuit board repair to maintain the clutter suppressor and automatic alarm units and associated equipment of the AN/SPS-10 radar system.
Instruction: Lectures and practical exercises in the maintenance of the clutter suppressor and automatic alarm units of the AN/SPS-10 radar system and associated equipment, including basic operation, signal flow; functional, module and circuit analysis of the equipment; and functional troubleshooting.
Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0434

AN/APX-76A Air/Air IFF Interrogator Set Intermediate Maintenance

Course Number: C-102-3066.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 3 weeks (120 hours).
Exhibit Dates: 8/70–Present.
Objectives: To train fleet maintenance personnel who have backgrounds in IFF systems and digital fundamentals to operate and maintain the AN/APX-76A interrogator set at the intermediate level.
Instruction: Lectures and practical exercises in the operation and maintenance of the AN/APX-76A interrogator set, including block-diagram analysis of the transmit and receiver section and performance monitor, and analysis of various circuits.
Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0435

A-6A AN/APQ-112 Track Radar Test Console and Detailed Radar Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 11 weeks (440 hours).
Exhibit Dates: 1/70–Present.
Objectives: To train maintenance personnel who have had previous training in basic electronics and transistor fundamentals to operate and maintain AN/APQ-112 track radars and associated test consoles.
Instruction: Lectures and practical exercises in the operation and maintenance of AN/APQ-112 track radars and associated test consoles, including block-diagram analysis, control and power circuits, receiving and video processing, servo amplifier, antenna control, test console analysis, and repair procedures.
Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0436

Tartar Weapon Direction System (WDS) Mk 4, Class C

Course Number: A-121-0029; A-121-0030.
Location: Guided Missile School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.
Length: 14 weeks (420 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train fire control technicians to maintain the weapon direction system.
Instruction: Lectures and practical exercises in the maintenance of the weapon direction system, including an introduction to

the Tartar weapon control system, power system, simulation, sweep generation, sweep deflection, display system, tracking and target evaluation, WDE MK 1 adjustments, designation data converting system, and weapon assignment system.

Credit Recommendation: In the vocational certificate category, credit in electronics laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (3/74).

NV-1715-0437

Tartar Weapon Direction Systems (WDS) Mk 4 Mod 0, Class C

Course Number: A-121-0029; A-121-0030.

Location: Guided Missiles School, 0 Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 20 weeks (549 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain the Mk 4 Mod 0 weapons direction system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 4 Mod 0 weapons direction system, including equipment operation, target selection and tracking console CRT, director and weapon assignment display and switching circuits, power circuits, and ancillary equipment use.

Credit Recommendation: In the vocational certificate category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (3/74).

NV-1715-0438

S-2D/E AN/APS-88/88A Radar Set Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain the APS-88/88A radar systems at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the APS-88/88A radar systems, including system operation, synchronizer (trigger generator, gate, sweep generator, and sweep amplifier), receiver-transmitter assembly (modulator transmitter, microwave assembly, and automatic frequency control), azimuth range indicator, power system, antenna reflector, azimuth drive system, vertical stabilization system, and practical maintenance.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (3/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (3/74).

NV-1715-0439

RA-5C Still Picture Camera Shop Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel who have had previous training in electronic circuits and transistor fundamentals to operate and maintain the RA-5C still-picture, aerial reconnaissance camera system.

Instruction: Lectures and practical exercises in the operation and maintenance of the RA-5C still-picture, aerial reconnaissance camera system, including photographic control panels and associated circuits, IMC and shutter control assembly, various modules, still-picture camera mounts, operation and assembly of specific camera equipment, and flasher system components and operation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in physics, 4 in electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in physics, 2 in electronics (3/74).

NV-1715-0440

SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 4 Technician

Course Number: A-193-014.

Location: Guided Missiles School, Dam Neck, VA.

Length: 25 weeks (840 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train electronics technicians who have backgrounds in Polaris or fleet ballistic missile electronics to operate and maintain specific ship's inertial navigation systems, multispeed repeaters, sonar sounding sets, and interconnecting boxes.

Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 2 Mod 4 ship's inertial navigation system, the Mk 3 Mod 3 multispeed repeater, the AN/BQN-3 sonar sounding set, and the Mk 6 Mod 1 interconnecting box, including subsystem tie-in and associated test equipment operation, fleet ballistic missile weapons system operation, analysis of the sonar sounding set, and repair procedures.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics and electronics laboratory (4/74).

NV-1715-0441

AN/SRN-9A, Radio Navigation Set, Operation and Maintenance

Course Number: F-193-0072.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 5/71–Present.

Objectives: To train submarine electronics technicians to operate the navigation satellite system and to operate and maintain the AN/SRN-9A radio navigation set.

Instruction: Lectures and practical exercises in the operation and maintenance of the navigation satellite system and the AN/SRN-9A radio navigation set, including specialized treatment of equipment and systems, modulation, logic circuits, test signal generator, symbolic integrated maintenance, receiver and message demodulator, digital processing unit, power supply, electrothermal teleprinter, and software.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0442

Terrier Weapons System Missile Fire Control System (MFCS) Mk 73

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 6 weeks (180 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train senior petty officers to supervise Terrier missile weapons system technical operations.

Instruction: Lectures and practical exercises in the operation of Terrier weapons systems, including system data flow, specific system description, target detection, selection, and tracking, director assignment, target designation and control system, acquisition and tracking using special equipment, circuit analysis of equipment components, and computation of missile and launcher orders using computers, signals and weapon assignment, and testing and maintenance procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0443

Terrier Weapons System Missile Fire Control System (MFCS) Mk 76

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 10 weeks (300 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train senior petty officers to supervise Terrier missile weapons systems technical operations.

Instruction: Lectures and practical exercises in the operation of Terrier missile weapons systems, including basic systems operation and equipment, target detection, missile selection and WDE tracking, FCS assignment and target tracking, and fire control problem computation using computers, missile firing and guidance, data reduction, and test and alignment procedures.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74).

NV-1715-0444

Talos Weapons System Mk 77 Mod 2 (Class C)

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 10 weeks (300 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train fire control technicians to lead Talos missile weapons systems technical operations.

Instruction: Lectures and practical exercises in the operation of Talos missile weapons systems, including cruiser weapons systems, search radar sets, test equipment, target detection, identification, entry and tracking, evaluation, and acquisition; associated missile operation and servicing, weapon control and data system, the 3M system, and system testing and alignment procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0445

AN/BRD-7, AN/WYQ-1, AN/BRQ-1 Basic Operator, Class C1

Course Number: A-233-0029.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 1/72 weeks (Present hours).

Exhibit Dates: 3-90.

Objectives: To train an individual to operate a surveillance receiver and digital display unit.

Instruction: Course trains the individual to operate three pieces of equipment (two receivers and a display unit) and includes basic theory, physical description, and function of all controls, indicators, displays, and interface connections.

Credit Recommendation: No credit is recommended because of military-specific nature of the course (9/77).

NV-1715-0446

AN/DSM-32 Sparrow III Guided Missile Test Equipment Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Miramar, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 9/67–Present.

Objectives: To train enlisted personnel to maintain and operate the Sparrow III missile and associated test equipment at the intermediate level.

Instruction: Lectures and practical exercises in the operation and maintenance of the Sparrow III and associated test equipment, including check-out procedures, test set analysis and components, calibration and testing, and troubleshooting and repair procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74).

NV-1715-0447

Mardan Computer Theory and Maintenance I

Course Number: A-193-0288.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Naval Submarine School, New London, CT; Naval Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2–3 weeks (60–75 hours).

Exhibit Dates: 10/75–Present.

Objectives: To provide theory of operation of specific military equipment and to train in fault isolation and repair of the equipment.

Instruction: Lectures and laboratories in the theory of equipment operation, including power supply sequencing, relay logic, and alarm systems and in fault isolation and repair of the equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (9/77).

NV-1715-0448

Mardan Computer Theory and Maintenance II

Course Number: A-193-0289.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Naval Submarine School, New London, CT; Naval Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/75–Present.

Objectives: To provide theory of operation of specific equipment and to train to perform fault isolation and repairs on the equipment.

Instruction: Lectures and laboratories on monitoring circuits, relay logic synchro loops, digital motor-control closed loops; the use of diagnostics to determine fault isolation and to make repairs on specific equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electromechanical repair (9/77).

NV-1715-0449

AN/BRD-7 Combined Maintenance, Class C1

Course Number: A-102-0217.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 12 weeks (360 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train the technician to operate and maintain a digitally controlled communication receiver that automatically processes the received information.

Instruction: This course covers a multiband receiver system that digitizes the input signal information and processes this data to optimize the antenna configuration and directional finder receivers to determine bearing information. This information is recorded in a digital memory system and on a mechanical printer. Subsystems studied include power supplies; operational amplifiers; passive filters; audio, video, and logrithmic amplifiers; several superhetrodyne receivers in the low-to-high-communication bands; limiters; logic controlled amplifiers; random access memory units; comparitor circuitry; and TTL and ECL logic subsystems. The student covers the physical description of the equipment, all operating modes, block-diagram description of the signal flow, and data control information; schematic diagrams of each circuit board identifying test points and correct signal levels; preventive maintenance; troubleshooting to isolate fault to the IC board and in most cases to the actual component, using 4-trace oscilloscopes, AM-FM signal generators, frequency counters, spectrum analyzer, time domain reflectometer, digital voltmeters, differential voltmeters, and special test equipment for this systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in electronic engineering technology (9/77)

NV-1715-0450

A-7A/B Integrated Avionics Weapons System Technician Organizational Maintenance

Course Number: C-102-3794.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 6 weeks (224 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fleet maintenance personnel to troubleshoot and perform operational checks on the A-7A/B weapons system.

Instruction: Lectures and practical exercises in troubleshooting and operational checks on the A-7A/B weapons system, including ordnance familiarization, associated equipment and weaponry, integrated flight instruments system components and circuitry, gyroscopic principles, air data equipment, delivery and release systems, weapons release computer, and associated radar set components and operation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0451

A-6 Electronic Module Test Console Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train enlisted personnel who have backgrounds in avionics and transistor fundamentals to operate and maintain the AN/ASM-175 (XN-1) electronic module test console.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ASM-175 (XN-1) electronic module test console, including transistor theory, AC and DC power distribution, logic circuits, test equipment, oscilloscope, and programming and testing of various components and modules.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0452

A-4E Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance

Course Number: C-102-3724.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fleet maintenance personnel to maintain the communications, navigation, identification, and weapons systems of the A-4E Douglas Skyhawk aircraft.

Instruction: Lectures and practical exercises in flight-line maintenance of the A-4E Douglas Skyhawk aircraft communications, navigation, identification, and weapons systems, including system analysis, transmitters, radar fundamentals, digital computer principles, specific UHF equipment, Shrike improved display system, and system operation and analysis.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0453

RA-5C Flight Control Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train maintenance personnel with knowledge of basic hydraulics and electricity to operate and maintain flight control systems at an intermediate level.

Instruction: Lectures and practical exercises in the maintenance of flight control systems, including directional, lateral, latitudinal, and flight control system components and operation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0454

RA-5C Air Data and Flight Reference Systems Organizational Maintenance
(RA-5C Air Data and Flight Reference Systems)

Course Number: C-602-3749.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 2-3 weeks (80-120 hours).

Exhibit Dates: 4/68-3/73.

Objectives: To train maintenance personnel to maintain and service air data and flight reference systems.

Instruction: Lectures and practical exercises in RA-5C air data and flight reference systems operation and maintenance procedures, circuit analysis, troubleshooting, and utilization of test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0455

RA-5C Flight Control System Organizational Maintenance

Course Number: C-602-3744.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4-5 weeks (160-200 hours).

Exhibit Dates: 3/69-Present.

Objectives: To train maintenance personnel to operate and maintain the RA-5C flight control system.

Instruction: Lectures and practical exercises in the operation and maintenance of the RA-5C flight control system, including hydraulic systems, primary and secondary airflow systems, and directional control, lateral control, longitudinal control, and automatic flight control systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0456

Fleet Ballistic Missile (FBM) Navigation Officer

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA.

Length: 13 weeks (630 hours).

Exhibit Dates: 3/65-12/68.

Objectives: To train officers as fleet ballistic missile navigation officers.

Instruction: Lectures and practical exercises in the functions of fleet ballistic missile navigation officers, including inertial navigation, transmission systems, electronics and transistors, computers, ship's inertial navigation system and hardware description, marine differential analyzer computer, system calibration techniques, navigational aids, administrative aspects of the F.B.M. program and Navsubsystem operational laboratory.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics, 2 in data processing (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 2 in data processing (4/74); in the upper-division baccalaureate category, 2 semester hours in data processing (4/74).

NV-1715-0457

F-4B Shoehorn Organizational Maintenance

Course Number: C-102-3809.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/71-Present.

Objectives: To provide fleet maintenance personnel with training on Shoehorn systems, including equipment, location, installation and removal, power distribution, interface, and use of line-test equipment.

Instruction: Lectures and laboratories in Shoehorn systems, components, locations, and maintenance procedures; preflight, postflight, and periodic inspections; and system line maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0458

A-6A Shoehorn Organizational Maintenance

Course Number: C-102-3761.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 4 weeks (160 hours).

Exhibit Dates: 7/69-Present.

Objectives: To train fleet organizational maintenance personnel to maintain A-6A/E Shoehorn electronic countermeasures systems.

Instruction: Lectures and laboratories in A-6 electronic countermeasures systems operation, interface, and RF-cable and system line maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0459

E-2A Weapon System Specialist
(E-2A Weapon System Special, No. 5)

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 8-10 weeks (320-400 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train avionics technicians to maintain complete E-2A avionics systems and to use line-test equipment.

Instruction: Lectures and laboratories in introduction to E-2A aircraft, ground equipment, in-flight performance monitor test sets, airborne tactical data systems, and allied electronics.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0460

E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13)

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2-3 weeks (80-120 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train enlisted personnel who have had previous training in transistor fundamentals to operate and maintain automatic flight control systems and air data computers.

Instruction: Lectures and practical exercises in automatic flight control system operation, calibration, and maintenance; air data computer operation and maintenance; servo systems; utilization of test equipment; and maximum rudder and pitch feel system operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0461

C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance

Course Number: C-602-3492.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: *Version 1:* 2 weeks (80 hours). *Version 2:* 3 weeks (120 hours).

Exhibit Dates: *Version 1:* 9/69-Present. *Version 2:* 3/68-8/69.

Objectives: To train enlisted personnel who have backgrounds in transistors to operate and maintain automatic flight control systems and air data computers.

Instruction: Lectures and practical exercises in the operation, circuitry, and maintenance of automatic flight control systems and air data computers; utilization of trainer panels and associated test equipment; maximum rudder and pitch feel systems; and servo systems and amplifiers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (6/75). *Version 2:* In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0462

P-3 PB-20N Autopilot System Intermediate Maintenance

Course Number: C-602-3532.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/71-Present.

Objectives: To provide electrical maintenance personnel with training in intermediate-level maintenance, circuit analysis, operation, and test procedures for PB-20N autopilot systems.

Instruction: Lectures and practical exercises in theory of operation of autopilot systems, power supplies, amplifiers, test equipment, bench testing, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0463

P-3 AN/ASA-16 Display System Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 12/70–Present.

Objectives: To train enlisted personnel to maintain and align ASA-16 display groups at the intermediate-maintenance level.

Instruction: Lectures and practical exercises in display system operation and maintenance, amplifiers, servo systems, and basic digital computers.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (4/74).

NV-1715-0464

UH-2A/B Automatic Stabilization Equipment Organizational Maintenance

(UH-2A/B Automatic Stabilization Equipment Intermediate Maintenance)

(UH-2A/B Automatic Stabilization Equipment Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Ream Field, CA.

Length: 3–5 weeks (112–200 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to operate, service, and maintain the UH-2A/B's automatic stabilization equipment.

Instruction: Lectures and practical exercises in automatic stabilization equipment familiarization, troubleshooting procedures, and maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0465

RF-4B AN/ASN-46/74 Navigation Computer and Inertial Navigation System Intermediate Maintenance

(RF-4B Inertial Navigation System Intermediate Maintenance)

Course Number: C-102-3839.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 6–9 weeks (240–360 hours).

Exhibit Dates: 1/71–Present.

Objectives: To train maintenance personnel to test and repair AN/ASN-46A and AN/ASN-74 inertial navigation system components.

Instruction: Lectures and practical exercises in inertial navigation system circuit analysis, troubleshooting, and component repair, and utilization of applicable test equipment, publications, and procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0466

Tartar Weapons Control System

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 10 weeks (300 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train officers, warrant officers, and enlisted personnel to operate, maintain, test, adjust, align, and preserve Tartar weapon systems.

Instruction: Lectures and practical exercises in Tartar weapon control systems, missile, and launcher, data flow block diagrams, missile fire control systems, weapon direction equipment, and maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0467

Terrier/Tartar Guided Missile and Guided Missile Test Set Maintenance

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 23 weeks (690 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train enlisted personnel to test and maintain Terrier and Tartar guided missiles, and to operate and maintain Terrier and Tartar guided missile test sets and associated test equipment.

Instruction: Lectures and laboratories in physical description and capabilities of Terrier and Tartar missile control systems, guidance radar, signal comparators, guided missile test sets, and radar test sets; casualty analysis and repair; and operation and maintenance of ground stations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0468

RF-4B AN/ASN-55 Attitude Heading Reference System Maintenance

Course Number: C-102-3834.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train maintenance personnel to maintain and service AN/ASN-55 back-up and attitude reference systems.

Instruction: Lectures and laboratories in theory of operation and maintenance procedures for attitude-heading reference systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0469

Electronic Surveillance Maintenace (ESM) AN/WLR-8(V)2 Combined Maintenance

Course Number: A-233-0040.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 10–12 weeks (350–420 hours).

Exhibit Dates: 12/76–Present.

Objectives: To study the theory of operation and perform maintenance on a complex multichannel digital controlled receiver and digital data processor computer system.

Instruction: Course includes analog-to-digital and digital-to-analog conversion, multiplexing, demultiplexing, ALU units, RF digital tuner control circuits, and displays, and teaches student to perform fault isolation, alignment, adjustment, and calibration and to make repairs on the component.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in electronics or computer technology (9/77).

NV-1715-0470

Missile Technician Poseidon Logistics

Course Number: A-121-0140.

Location: Guided Missiles School, Dam Neck, VA.

Length: 26 weeks (836 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to perform as missile technicians on board Poseidon FBM submarine tenders.

Instruction: Lectures and laboratories in Poseidon missiles, missile guidance, missile test and readiness equipment, guidance system test sets, associated test equipment, basic electronics, digital techniques, and operational amplifiers.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (4/74).

NV-1715-0471

E-2A AN/ASM-33A In-Flight Performance Monitor Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/67–Present.

Objectives: To train enlisted personnel to maintain the E-2A AN/ASM-33A In-Flight Performance Monitor at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the E-2A in-flight performance monitor AN/ASM-33A, including component analysis, oscilloscope components and operation, multimeter usage and associated circuits and power supply, and analysis of associated equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0472

S-2D/E MH-67 Auto Pilot System Maintenance, No. 7

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train maintenance personnel to maintain the MH-67 A.F.C.S. autopilot system.

Instruction: Lectures and practical exercises in the maintenance of the MH-67 A.F.C.S. autopilot system, including basic gyroscopes, transistors, amplifiers and flight principles; equipment components and circuitry; synchronization and stabilization; and testing and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0473

Terrier Weapon Direction System Mk 7 (WDE Mk 8)

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 20 weeks (600 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train enlisted personnel to inspect and maintain the Mk 7 weapons direction system.

Instruction: Lectures and practical exercises in the maintenance of the Mk 7 weapons direction system, including Terrier weapons system theory and fundamentals, power supplies, radar fundamentals, simulation, sweep generation, video systems, target selection and assignment, symbol systems, data conversion, weapons systems differences, and associated test equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0474

A-6 Avionics Systems Organizational Level Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 8–9 weeks (320–360 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train avionics maintenance personnel to maintain and service the A-6 aircraft's avionics systems.

Instruction: Lectures and practical exercises in aircraft familiarization, search radar, track radar, inertial navigation systems, digital fundamentals, computer familiarization, computer line maintenance, system operation and troubleshooting, and organizational test equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0475

A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 7–8 weeks (280–320 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel to maintain inertial navigation systems and to service inertial navigation test consoles.

Instruction: Lectures and practical exercises in basic physics, analog and digital signal flows, power supplies and distribution, inertial test equipment, and system operation and maintenance.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics, 4 in physics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics, 2 in physics (4/74).

NV-1715-0476

A-6A AN/ASN-31 Inertial Navigation Organizational Level Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to test and maintain the AN/ASN-31 inertial navigation system of the A-6 aircraft.

Instruction: Lectures and practical exercises in the maintenance of the AN/ASN-31 inertial navigation system of the A-6 aircraft, including general aircraft systems, theory and components of inertial navigation systems, air navigation, gyroscopes, accelerometers, analog computers, velocity information, test equipment, and line maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0477

P-3 ASA-16 System Maintenance, No. 50

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel who have completed courses in transistor fundamentals and P-3 aircraft familiarization to maintain the ASA-16 display group of the P-3 aircraft.

Instruction: Lectures and practical exercises in the maintenance of the ASA-16 display group of the P-3 aircraft, including block-diagram analysis, components, circuit analysis, servomechanisms, radar set adapter, electronic gate generator, various subassemblies, range and bearing functions, power distribution, alignment procedures, and basic computer elements of the system.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0478

E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train enlisted personnel who have background in avionics, automatic flight control systems, and air data computers to operate and maintain the programming test console and check-out equipment of the E-2A aircraft's automatic flight control system.

Instruction: Lectures and practical exercises in the operation and maintenance of the programming test console and check-out equipment of the E-2A aircraft's automatic flight control system, including operation of various adapters; power supplies; amplifiers; block-diagram and component analysis; and associated test sets.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0479

RA-5C AN/APN-120 Electronic Altimeter Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train electronics maintenance personnel to operate and maintain the AN/APN-120 electronic altimeter and associated semiautomatic test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/APN electronic altimeter and associated semiautomatic test equipment, including transmitters and receivers, amplifiers, radar fundamentals, power supplies, FM and AM review, low- and high-altitude systems components and circuit analysis, and test equipment function and components.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0480

Basic Electronics Orientation

Course Number: D-100-015.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA; Fleet Airborne Electronic Training Unit Detachment, Jacksonville, FL.

Length: 6 weeks (180 hours).

Exhibit Dates: 7/66–12/68.

Objectives: To train maintenance personnel in basic electronics.

Instruction: Lectures in AC and DC circuit theory; mathematics review; physics of atomic structure; vacuum tube and transistor theory; and special test equipment usage, including meters, signal generators, and oscilloscopes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68).

NV-1715-0481

1. Basic Airborne Radio Communications Operator
2. Airborne Radio Communications Operator (ARCO)

Course Number: *Version 1:* D-201-0010. *Version 2:* D-201-010.

Location: Fleet Airborne Electronics Training Unit, Jacksonville, FL; Fleet Airborne Electronics Training Unit, Brunswick, ME.

Length: *Version 1:* 5 weeks (175 hours). *Version 2:* 12 weeks (320 hours).

Exhibit Dates: *Version 1:* 1/70–Present. *Version 2:* 1/66–12/69.

Objectives: To train enlisted personnel to be airborne radio communications operators.

Instruction: Lectures and laboratories in international Morse code, communications publications, naval communications procedures, electronic equipment safety precautions, naval patrol aircraft power supply and communications systems operation and in-flight maintenance procedures, and teletypewriter and radiotelephone operating procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in radio operation or two-way communications (6/75). *Version 2:* In the upper-division baccalaureate category, credit in electronics on the basis of institutional evaluation (4/74).

NV-1715-0482

AN/SPN-10 Operator

Course Number: D-2G-010; D-222-010.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA; Naval Air Station, Patuxent River, MD.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To train enlisted personnel to operate automatic carrier landing system equipment.

Instruction: Lectures and practical exercises in AN/SPN-10 automatic, carrier landing system equipment operational capabilities and limitations, aircraft equipment requirements, subsystems and associated support equipment introduction, preoperative procedures and subsystem checks, operator maintenance, emergency procedures and safety precautions, and operational training on the AN/MPN-T1 console and subsystems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0483

AN/APN-122 Maintenance Training
(AN/APN-122 Doppler Navigation System Maintenance)

Course Number: D-102-014.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 11/63–12/68.

Objectives: To train maintenance personnel to conduct preventive and corrective maintenance on AN/APN-122 Doppler radar navigation equipment.

Instruction: Lectures in AN/APN-122 Doppler radar navigational equipment, including theory of operation; block diagram and circuit analysis; troubleshooting and maintenance techniques; test equipment usage; pre-amp, signal data converter, and ground speed computer alignment; and trouble analysis, isolation and repair.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0484

AN/APS-20E Maintenance Training
(AN/APS-20E Radar System Maintenance)

Course Number: D-102-015.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 6 weeks (180 hours).

Exhibit Dates: 11/63–12/68.

Objectives: To train electronics maintenance personnel to maintain the AN/APS-20E radar.

Instruction: Lectures on AN/APS-20E radar, including theory of operation, system description, low-voltage power supply, synchronizer, modulator, transmitter, duplexer, radar receiver, antenna, and operator indicators; and practical applications, including equipment operation, alignment, and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0485

AN/APS-38B Maintenance Training
(AN/APS-38B Radar System Maintenance)

Course Number: D-102-016.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/63–12/68.

Objectives: To train electronics maintenance personnel to maintain the AN/APS-38B radar.

Instruction: Lectures and practical exercises in AN/APS-38B radar system operation, including description and function of equipment, circuit analysis, and operating procedures and techniques; and practical applications, including equipment operation, alignment, component location, associated test equipment usage, and trouble location.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0486

AN/ARC-38A Maintenance Training
(AN/ARC-38A SSB Transceiver Maintenance)

Course Number: D-102-021.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 6/64–12/68.

Objectives: To train electronics maintenance personnel to maintain AN/ARC-38A radio navigation equipment.

Instruction: Lectures and practical exercises in AN/ARC-38A radio navigation equipment operation, including receiver-transmitter, antenna coupler, teletype, and signal data converter; and practical applications, including equipment operation, component location, test equipment usage, alignment procedures, and troubleshooting.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0487

AN/ARN-21D TACAN Navigation Set Maintenance
(AN/ARN-21D Maintenance Training)
(AN/ARN-21D TACAN Receiver Maintenance)

Course Number: D-102-024.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/66-12/68.

Objectives: To train maintenance personnel to operate, adjust, and troubleshoot AN/ARN-21D navigational radio equipment.

Instruction: Lectures and practical experience in AN/ARN-21D navigational radio equipment operation, basic electronics and circuit theory, component failure, system analysis, and system adjustment and alignment procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0488

AN/ASA-16 Data Display Group Maintenance Training

Course Number: D-102-026.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 3/64–12/68.

Objectives: To train electronics maintenance personnel to maintain the AN/ASA-16 data display group.

Instruction: Lectures and practical exercises in AN/ASA-16 data display group theory of operation, including block-diagram and circuit analysis; equipment operation, calibration, and component location; special test equipment usage; and trouble location.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0489

AN/ARC-94 Single Side Band Transceiver Maintenance

Course Number: D-102-030.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 3 weeks (90 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To train electronics maintenance personnel to maintain the AN/ARC-94 system.

Instruction: Lectures in AN/ARC-94 operation, associated test equipment usage, and alignment and troubleshooting procedures.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0490

Alternating Current Power Systems

Course Number: D-602-011.

Location: Fleet Airborne Electronics Training Unit Detachment, Jacksonville, FL.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To train aviation electricians to maintain, analyze, and isolate malfunctions in aircraft electrical systems.

Instruction: Lectures and practical exercises in alternating current theory, power systems, components, electron and magnetic principles review, DC current theory review, various types of reactance, transformers, and description, components, and troubleshooting procedures for brush, brushless, and emergency generator systems.

Credit Recommendation: In the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (12/68).

NV-1715-0491

AN/BPS-15 Radar Combined
Maintenance

Course Number: A-102-0199.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, New London, CT.

Length: 3/72 weeks (Present hours).

Exhibit Dates: 3-4-90-120.

Objectives: To provide instruction on the operation and maintenance of an installed submarine radar system.

Instruction: Course includes lecture on basic radar theory, including AC/DC power distribution, transmitter/receiver theory, video and control circuits. Course also covers troubleshooting and performance checking. Student learns principles of radar, technical theory of operation, routine preventive and corrective maintenance.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics engineering technology (9/77).

NV-1715-0492

Satellite Receiver AN/SRN-9A
Combined Maintenance
(Satellite Receiver AN/SRN-9A, BRN-6
Combined Maintenance, Class F1)

Course Number: A-102-0168.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 12/70 weeks (Present hours).

Exhibit Dates: 2-60-80.

Objectives: To provide the necessary theory and skills to operate and maintain a navigation satellite receiver.

Instruction: This is a block-diagram-level course emphasizing physical, functional, and interface description as well as the basic maintenance of a radio receiver. Course provides introduction to digital mathematics and digital circuits, and basic operation of integrated circuits.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0493

AN/APN-171(V) Radar Altimeter
(Low Level) Intermediate
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3 weeks (96 hours).

Exhibit Dates: 3/71-Present.

Objectives: To train maintenance personnel to operate and maintain the AN/APN-171(V) radar altimeter system.

Instruction: Lectures and practical exercises in the maintenance and operation of the AN/APN-171(V) radar altimeter system, including block-diagram analysis; transmitter, receiver, and range detection; output circuits; and testing and alignment.

Credit Recommendation: In the vocational certificate category, credit in electronics laboratory on the basis of institutional evaluation (4/74).

NV-1715-0494

Electronic Surveillance
Maintenance (ESM) AN/WYQ-1,
AN-BRQ-1 Combined
Maintenance
(AN/WYQ-1 and AN/BRQ-1 Combined
Maintenance Class C-1)

Course Number: A-102-0128.

Location: Submarine School, New London, CT; Submarine Training Center,Pacific, Pearl Harbor, HI.

Length: 5 weeks (150 hours).

Exhibit Dates: 5/68-Present.

Objectives: To teach the maintenance of a digital display unit and a specialized surveillance receiver.

Instruction: Course covers the maintenance of a data display unit and a surveillance receiver. This equipment is made with transistors and IC logic boards. The course includes physical and functional characteristics and the operation, alignment, adjustment, calibration, preventive maintenance, and troubleshooting to isolate faults to the IC board and component level and to make repairs. Subsystems maintained are control display unit, printer recorder, magnetic tape transport, digital processor, power supply, superheterdyne receiver, timing module, and interfacing module.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics technology (9/77).

NV-1715-0495

Tradevman R (Repairman) Class A

Course Number: None.

Location: Air Technical Training Center, Memphis, TN.

Length: 17 weeks (680 hours).

Exhibit Dates: 6/56-7/65.

Objectives: To train enlisted personnel to install, operate, maintain and repair training devices used in gunnery, aviation, and electronics instruction.

Instruction: Lectures and practical exercises in training devices operation, maintenance, and repair, including AC fundamentals, resonance circuits, vacuum tubes, audio amplifiers, rectifiers, regulators, radio receiver theory, time constants, pulse and wave-shaping circuits, audio transducers, optical and electromechanical devices, synchros fundamentals, servomechanisms, vacuum and mechanical systems (Link trainer 1-CA-1), and troubleshooting and alignment procedures.

Credit Recommendation: In the vocational certificate category, 9 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity or electronics, and credit in electronics laboratory on the basis of institutional evaluation (4/74).

NV-1715-0496

Atmosphere Analyzer, CAMS
(Central Atmosphere
Monitoring System) Mk 1

Course Number: A-623-0048.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (90 hours).

Exhibit Dates: 9/77-Present.

Objectives: To provide theory and skills necessary to perform normal/casualty operational tasks and preventative/corrective maintenance on an atmosphere analyzer.

Instruction: Course is largely descriptive, involving operation and maintenance of the above-mentioned equipment. Includes readout module, diagnostic module, coanalyzer module, MS analyzer model, low voltage power supply module, ion pump power supply module, and an AC control module.

Credit Recommendation: No credit is recommended because of technical nature of the course (9/77).

NV-1715-0497

1. Tradevman, Class A
2. Tradevman School, Class A
3. Class A Tradevman School

Course Number: C-191-2010; C-191-10.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 6 weeks (274 hours). *Version 2:* 7 weeks (312 hours). *Version 3:* 20 weeks (800 hours).

Exhibit Dates: *Version 1:* 6/72-Present. *Version 2:* 8/65-5/72. *Version 3:* 1/55-7/65.

Objectives: To train enlisted personnel to install, operate, maintain, and repair training devices used in gunnery, aviation, and electronics instruction.

Instruction: Lectures and practical exercises in training devices fundamentals, including applied physics introduction, analog computer basics, flight theory and performance introduction, basic jet instrument training, basic navigation principles, radio aids to navigation, and flight simulator maintenance.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68).

NV-1715-0498

E-1B Electronic Systems
Organizational Maintenance
(E-1B Integrated Electrical System Organizational Maintenance)

Course Number: C-600-3457; C-602-3457.

Location: Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 3-4 weeks (120-160 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train fleet maintenance personnel to maintain and operate the E-1B radar, communication, and navigation electronic systems.

Instruction: Lectures and practical exercises in the maintenance and operation of the E-1B radar, communication, and navigation electronic systems, including theory of radar principles; block-diagram analysis of transmitters, RF circuits, and computer and control circuits; radar system associated equipment; and IFF systems operation.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional examination (4/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional examination (4/74). *Version 2:* In the vocational certificate category, 3 semester hours in radar or HF circuits (4/74).

NV-1715-0499

F-4J Data Link System Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 6 weeks (240 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train maintenance personnel who have completed courses in transistor and digital fundamentals to maintain and operate the F-4J data link system.

Instruction: Lectures and practical exercises in the operation and maintenance of the F-4J data link system, including review of digital mathematics, logic circuits and functions; system evaluation by functional block description; descriptive theory of system components; message generator and display; discrete indicators; and radar indicator.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0500

Electronic Surveillance Maintenance (ESM) AN/WLR-6 Basic Operator

Course Number: A-233-0042.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (90 hours).

Exhibit Dates: 1/70–Present.

Objectives: To present the tasks required for four of the five operator positions required to handle a complex submarine surveillance receiver.

Instruction: Course offers general physical description, equipment interface, basic theory, and function of a complex receiver systems and signal processor. Major emphasis is on learning to operate this equipment at four of the five operator positions of this equipment. These tasks include knowing the function of all controls and connector terminals; the RF receivers; audio, video, and auxiliary equipment and correct patch plug interconnections.

Credit Recommendation: No credit is recommended because of the military-specific nature of the course (9/77).

NV-1715-0501

Electronic Surveillance Maintenance (ESM) AN/WLR-6 Combined Maintenance

Course Number: A-233-0041.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 16 weeks (480 hours).

Exhibit Dates: 9/69–Present.

Objectives: Course is designed to train technicians to operate and maintain a complex manually operated multichannel signal reception and processor radio receiver that can handle any type of transmitted signal.

Instruction: The student learns the functional description, block-diagram signal flow and operating modes of the system in some 255 hours of lecture and 225 hours of laboratory. Subjects covered are a multiple antenna system and its coupling and antenna switching circuits, a VHF panoramic manual receiver and its subsystems, basic digital concepts using resistor diode logic and transistor flip-flops, knowledge and application at db and noise figure, video and audio amplifiers, video and audio tape recorders, video and audio distribution panels, power supplies, power distribution system, characteristics and operation of traveling ware tubes and klystrons, UHF preamplifiers, relay switching circuits, signal spectrum display unit, FM multiplexers and demultiplexers. Student learns to calibrate, align, adjust, and do performance tests on all this equipment.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electronics (9/77).

NV-1715-0502

Data Gathering Set AN/BQH-5(V)2 Basic Maintenance

Course Number: A-130-0176.

Location: Submarine School, New London, CT; Submarine TRaining Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/75–Present.

Objectives: Course provide system-level approach to maintenance of data-gathering equipment.

Instruction: Course includes familiarization with the FR 1300 tape recorder and console as well as other highly specialized pieces of equipment. Most of the course is laboratory oriented.

Credit Recommendation: No credit is recommended because of the limited technical nature of the course (9/77).

NV-1715-0503

Sonar Classification Set AN/BQH-2D/E Combined Maintenance

Course Number: A-130-0161.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/74–Present.

Objectives: To provide the necessary theory and skills required to operate and maintain a sonar classification set.

Instruction: Course offers basic training of a highly specialized nature. Course presents field effect transistors, integrated circuits, and logic circuits; also teaches specifics of this equipment and includes operation of DC power supplies, a signal data recorder, a hydrophone amplifier, and a spectrum analysis.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technician (9/77).

NV-1715-0504

Aviation Electronics Intelligence, Class O/C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 12/65–12/68.

Objectives: To train flight officers and enlisted personnel qualified as aircrewmen to operate electronics countermeasures and electronic counter-countermeasures systems.

Instruction: Lectures and practical exercises in the operational functions associated with electronic countermeasures and electronic counter-countermeasures and associated systems, including general electronic warfare information, ECM equipment, radar processing procedures, in-flight training, basic receiver and oscilloscope principles, and operation of associated equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74.

NV-1715-0505

EKA-3B AN/ASN-66B Navigational Computer Set Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/68–Present.

Objectives: To train maintenance personnel to operate and maintain the AN/ASN-66B navigational computer set.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ASN-66B navigational computer set, including introduction to dead-reckoning navigation; operational analysis; autosyn theory; great-circle solutions using spherical trigonometry; introductory solid-state circuitry; amplifiers; logic and compensation circuits; air speed analysis; synchro theory; use of multimeters, phase angle voltmeter, oscilloscope, and digital voltmeter; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in physics and electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in physics and electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in physics and electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0506

P-3A/B Sensor Station One and Two (Acoustic System Technician) Organizational Maintenance

Course Number: C-102-3559.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train enlisted personnel to maintain and test specific acoustic sensor systems.

Instruction: Lectures and practical exercises in the maintenance of specific acoustic sensor systems, including acoustics terminology, systems requirements, operating controls, signal flow and recorder operation, and repair procedures for sonobuoys, sound recorder systems, and computer recorders.

Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1715-0507

AN/APN-153(V) Doppler Radar Navigation System Intermediate Maintenance

Course Number: C-102-3041.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Kingsville, TX; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Beaufort, SC; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Quonset Point, RI.

Length: 5-6 weeks (200-240 hours).

Exhibit Dates: 8/69-Present.

Objectives: To train fleet maintenance personnel who have backgrounds in electronics and digital fundamentals to maintain the AN/APN-153(V) Doppler radar system.

Instruction: Lectures and practical exercises in the maintenance of the AN/APN-153(V) Doppler radar system, including circuit analysis of transmitters, logic systems, modulator assemblies, high-voltage power supplies, automatic frequency control assembly, antenna indicators; use of oscilloscopes, frequency counters, VTVM, sweep generator, audio oscillator, and signal generator; and repair techniques for system subassemblies.

Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1715-0508

E-2B OA-8206/ASA-27A Difference Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: *Version 1:* 3 weeks (120 hours). *Version 2:* 4 weeks (176 hours).

Exhibit Dates: *Version 1:* 6/71-Present. *Version 2:* 9/70-5/71.

Objectives: To train E-2A weapons system specialists to operate and maintain OA-8206/ASA-27A computers.

Instruction: *All Versions:* Lectures and practical exercises in general-purpose computers, system elements, power distribution, processor and input/output operations, timing circuits, control units, displays, navigation interfaces, and maintenance procedures. *Version 1:* Includes magnetic tape handling procedures. *Version 2:* Includes logic circuits and mechanization.

Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1715-0509

Inactive Duty Reserve Combat Information Center (CIC) Class—Basic, Supervisory and Officer Team Training

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 2 weeks (112 hours).

Exhibit Dates: 1/73-Present.

Objectives: To train inactive-duty reserve personnel to operate shipboard combat information centers.

Instruction: Lectures and practical exercises in the operation of shipboard combat information centers, including introductory electronics, electronic warfare, search and rescue, communications, ASW operations, surface tactics, anti-air warfare, relative and geographic plots, and naval combat operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0510

Electronics Technician AN/SPA-25 Indicator Group Class C Maintenance

Course Number: A-104-014; A-104-015.

Location: Electronics Technician, Class C School, San Diego, CA; Electronics Technician, Class C School, Norfolk, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/70-Present.

Objectives: To train enlisted personnel to operate and maintain the AN/SPA-25 indicator group and to use associated test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SPA-25 indicator group and the use of associated test equipment, including location and identification of units, assemblies, and subassemblies; timing system, sweep circuit, servo system, gear train, power supply, and intensity modulator circuit analyses; and planned maintenance and maintenance data collection systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical maintenance laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical maintenance laboratory on the basis of institutional evaluation (4/74).

NV-1715-0511

P-3 AN/APX-7 Radar Recognition System Intermediate Maintenance

Course Number: C-102-3538.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/70-Present.

Objectives: To train maintenance personnel with a basic knowledge of transistor theory to operate and maintain the AN/APX-7 radar recognition system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/APX-7 radar recognition system, including functional block diagrams, circuit analysis, transmitting system, subassemblies, power monitor and supplies, set control, and troubleshooting and alignment procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0512

Tartar Radar Set AN/SPG-51C and Director Mk 73 Mod 1

Course Number: A-104-0119.

Location: Guided Missiles School, Dam Neck, VA.

Length: 26 weeks (763 hours).

Exhibit Dates: 1/70-Present.

Objectives: To train fire control technicians to operate and maintain the AN/SPG-51C radar set.

Instruction: Lectures and practical exercises in the maintenance and operation of the AN/SPG-51C radar set, including use of specialized test equipment, AC and DC power supplies, digital theory, block diagrams of track radar components, various circuits, data flow, missile guidance, signal comparator, and alignment, calibration, troubleshooting, and repair techniques.

Credit Recommendation: In the vocational certificate category, 6 semester hours in basic electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electrical laboratory (4/74); in the upper-division baccalaureate category, 1 semester hour in basic electrical laboratory (4/74).

NV-1715-0513

AN/APQ-126 Radar Set Special Support Equipment Intermediate Maintenance

Course Number: C-102-3797.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 7 weeks (280 hours).

Exhibit Dates: 4/73-Present.

Objectives: To train radar maintenance personnel to operate and maintain the AN/APQ-126 radar set special support equipment at the intermediate level.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/APQ-126 radar set special support equipment, including introduction to, and circuit analysis of, the interconnecting power supply; control indicator; relay; assembly and adapter boxes; circuit analysis of various generators; circuit analysis of module, antenna/receiver, and antenna boresight test sets; and alignment, troubleshooting, and check-out procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic test equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, credit in electronic test equipment maintenance on the basis of institutional evaluation (4/74). (4/74).

NV-1715-0514

A-6 AN/APQ-92 Radar Antenna/Receiver and Associated Test Set Intermediate Maintenance

Course Number: C-102-3773.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 10/71-Present.

Objectives: To train maintenance personnel who have backgrounds in general electronics and maintenance of specific search radar systems to maintain and repair the AN/APQ-92 search radar antenna/receiver and associated equipment.

Instruction: Lectures and practical exercises in the maintenance of the AN/APQ-

92 search radar antenna/receiver and associated equipment, including use of block diagrams and signal tracing in system fault diagnosis and correction, function and analysis of terrain clearance, microwave and radiating, search receiving, and AFC and local oscillator groups; test set operation and components, and search receiver checkout and repair.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (4/74).

NV-1715-0515

AN/ASQ-17B Integrated Electronics Central Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 12/68–Present.

Objectives: To train maintenance personnel to maintain and repair the AN/ASQ-17B integrated electronics central.

Instruction: Lectures and practical exercises in the maintenance and repair of the AN/ASQ-17B integrated electronics central, including operation of IFF systems, transmitter and receiver operation, power supply and distribution, automatic radio direction finder, associated coders, and troubleshooting and adjustment procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics, and additional credit in electronics on the basis of institutional evaluation (4/74).

NV-1715-0516

AN/APS-115 Search Radar System Intermediate Maintenance

Course Number: C-100-3571.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train fleet maintenance personnel to operate and maintain the AN/APS-115 radar system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/APS-115 radar system, including introduction to integrated circuits and logic devices, block-diagram analysis, components, detailed operation of control boxes, antenna, and receiver-transmitter, and alignment and trouble isolation procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (4/74).

NV-1715-0517

VS AW Sensor Operator S2G

Course Number: D-210-0010.

Location: Fleet Aviation Specialized Operational Training Group, Quonset Point, RI.

Length: 6 weeks (210 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train flight personnel to operate the passive and active equipment in the AW S2G aircraft.

Instruction: Lectures and practical exercises in the operation of ASW equipment carried in the S2G aircraft, including MAD fundamentals, operation, and signal interpretation; radar fundamentals; target interpretation; air navigation computer; ESM equipment and tactics; introductory oceanography; Jezebel operations background; passive listening techniques and equipment; active acoustical equipment; and signature interpretation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0518

AN/ARN-21B/D TACAN Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/69–Present.

Objectives: To train maintenance personnel to operate and maintain the AN/ARN-21B/D TACAN receiver at the intermediate level.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ARN-21B/D TACAN receiver, including theory of operation, special test equipment and circuit analysis of system components, block diagrams, and troubleshooting and alignment procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, credit in electronic equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0519

AN/ARN-52(V) TACAN Receiver Intermediate Maintenance

Course Number: C-102-3034.

Location: Air Maintenance Training Detachment, Meridian, MS; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/68–Present.

Objectives: To train maintenance personnel with backgrounds in transistor fundamentals to operate and maintain the AN/ARN-52(V) TACAN receiver.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ARN-52(V) TACAN receiver, including theory of operation, circuit analysis and block diagrams of system components, channel servo operation, power supply, range-measuring and bearing-measuring circuitry, and troubleshooting and alignment procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, credit in electronic equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0520

5"/54 Rapid Fire Gun and Mount Mk 42 Mods 7 and 8, Class C1

(Gun Mount 5"/54 Mk 42 Mods 7 and 8)

Course Number: A-113-0029.

Location: Service School Command, Great Lakes, IL.

Length: 19 weeks (570 hours).

Exhibit Dates: 1/67–Present.

Objectives: To train gunner's mates to maintain advanced gun systems.

Instruction: Lectures and practical exercises in the maintenance of advanced gun systems, including electrical and hydraulic circuits, rapid fire gun mount and controlling system characteristics, specific gun mount operation, power supplies, test equipment, related electronic amplifiers, and maintenance management and logistics.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical laboratory (9/77).

NV-1715-0521

A-5A RA-5C AN/ASB-12 Line and Shop Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 12 weeks (480 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to service and maintain the AN/ASB-12 bomb-directing set.

Instruction: Lectures and practical exercises in the servicing, maintenance and modification of the AN/ASB-12 bomb-directing set, including introductory navigation and auto navigation techniques and systems components, video scanners, radar techniques, tie-in equipment, bombing computer elements, all-weather and visual modes, and overall system analysis.

Credit Recommendation: In the vocational certificate category, 5 semester hours in aircraft navigation systems (4/74).

NV-1715-0522

Aviation Electronics Officers, Class O

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 40 weeks (1420 hours).

Exhibit Dates: 4/57–12/68.

Objectives: To train aviation ground officers or aviators and warrant officers to supervise electrical and electronic maintenance activities.

Instruction: Lectures and practical exercises in the supervision of electrical and electronic maintenance activities, including basic electricity and electronic theory, introduction to radar, avionic systems operation, administrative procedures, and automatic flight control and special systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity, 3 in electronics, 3 in electronic systems, 6 in electronic systems laboratory (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 5 in engineering electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in basic electricity and electronics, 3 in electronics laboratory (4/74).

NV-1715-0523

Electronics Technician, Class C,
Wideband Synthesized
Independent Sideband Receiver

Course Number: A-101-039.

Location: Naval Training Center, Great Lakes, IL.

Length: 4 weeks (160 hours).

Exhibit Dates: 5/68-12/68.

Objectives: To train electronic technicians and radiomen to operate and maintain the AN/FRR-60(V) model DDR-5M synthesized independent sideband receiver and ancillary equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/FRR-60(V) model DDR-5M synthesized independent sideband receiver and ancillary equipment, including introduction to communications systems, receiver equipment, circuit analysis, the 3M system, component analysis, and power supplies.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0524

AN/SPS-52 Radar Set

Course Number: Not available.

Location: Naval Schools Command, Mare Island, CA.

Length: 28 weeks (840 hours).

Exhibit Dates: 2/68-Present.

Objectives: To train enlisted personnel to operate and maintain the AN/SPS-52 radar set.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SPS-52 radar set, including system capabilities and function, block-diagram analysis, digital computer troubleshooting procedures, power distribution system, major units of the Tartar weapons system, other radar and missile systems operations, detailed description of mathematics, operation of test equipment, and functional description of the digital-to-analog converter.

Credit Recommendation: In the vocational certificate category, 3 semester hours in digital logic (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital logic on the basis of institutional evaluation (4/74); credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0525

A3B, RA3B, EA3B AN/ALQ-35 DECM
System Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train fleet personnel to maintain the AN/ALQ-35 electronics countermeasures system and associated special support equipment at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the AN/ALQ-35 electronic countermeasures system and associated special support equipment, including brief review of radar and electronic countermeasures, functional description of the system and all component subsystems, use of standard and specialized electronic test equipment, and alignment, troubleshooting, and repair procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment maintenance (4/74).

NV-1715-0526

Terrier Radar Set AN/SPG-55B Mod 5

Course Number: A-104-0091; A-104-0092.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 30 weeks (900-1073 hours).

Exhibit Dates: 2/68-Present.

Objectives: To train fire control technicians to maintain the AN/SPG-55B radar system and to use associated test equipment for evaluation of system performance.

Instruction: Lectures and practical exercises in the maintenance of the AN/SPG-55B radar system and the use of associated test equipment for evaluation of system performance, including organization of radar systems, general radar principles and circuits, analysis of system components, track radiation, track receiver, range and angle tracking, pulsed radar monitoring, signal flow, electronic counter-countermeasures, and troubleshooting and alignment.

Credit Recommendation: In the vocational certificate category, 15 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory, and 2 additional credits in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0527

E-2A AN/ASQ-52 Data
Communications System Special
Support Equipment Intermediate
Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/67-Present.

Objectives: To train electronics technicians who have backgrounds in the maintenance of data communications systems to operate and maintain the AN/ASQ-52 data communications system's special support equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ASQ-52 data communications system's special support equipment, including block- and logic-diagram analysis of data communications system test equipment, modes of operation, power supply, flight-line test set components and operation, various module analyses, and testing procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in digital communication equipment (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in digital communication equipment on the basis of institutional evaluation (4/74).

NV-1715-0528

AN/ALQ-51A Countermeasures Set

Course Number: Not available.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Sanford, FL; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Miramar, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/67-Present.

Objectives: To train fleet maintenance personnel in AN/ALQ-51A countermeasures set theory and maintenance procedures.

Instruction: Lectures and practical exercises in AN/ALQ-51A countermeasures set introduction; block-diagram analysis; programmer, video delay, electronic gate, system blanking, modulation control, interim scan/final scan, and output and helix modulator assemblies; low-, intermediate-, and high-voltage power supplies; control circuits location, use, and theory; and intermediate maintenance procedures, including line checks, power supply checks, module checks, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic equipment maintenance (4/74).

NV-1715-0529

AN/ASM-398 Projected Map Display
Set (PMDS) Intermediate
Maintenance

Course Number: C-150-3783.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 9/72-Present.

Objectives: To train electronics maintenance personnel to service AN/ASM-398 projected map display sets.

Instruction: Lectures in AN/ASM-398 projected map display set servicing, including analog and digital circuits theory and operation, basic logic theory and microcircuitry, publications, programming description and procedures, self-test fault isolation, test set calibration, and associated test equipment operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in digital computer hardware (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer hardware, and additional credit in digital computer hardware on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in digital computer hardware on the basis of institutional evaluation (4/74).

NV-1715-0530

A-6 Search Radar Module Analyzer Test Console

Course Number: Not available.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 10 weeks (400 hours).
Exhibit Dates: 4/68–Present.
Objectives: To train maintenance personnel to operate and maintain circuit/system module-level test and repair facilities for search radar sets.
Instruction: Lectures and practical exercises in circuit and functional analysis of search radar system modules, including a variety of circuit types and modes of operation, and troubleshooting, maintenance, and repair procedures using standard and specialized electronic test equipment.
Credit Recommendation: In the vocational certificate category, 7 semester hours in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, credit in electronic equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0531

Radio Transceiver AN/WRC-1 Family Equipment
(AN/URT-23(V) Radio Transmitter Maintenance)

Course Number: A-101-0109; F-101-0027; L-101-0039.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.
Length: 4 weeks (120 hours).
Exhibit Dates: 10/72–Present.
Objectives: To train electronics technicians and radiomen to operate and maintain the AN/URT-23(V) transmitter.
Instruction: Lectures and practical exercises in the operation function and location of test points and subassemblies including block diagrams and schematics for signal tracing analysis of RF, IF, audio and power amplifiers, balance modulator, oscillators, keying circuits, power supplies, power distribution, and monitoring circuits. Preventive maintenance, alignment, troubleshooting and corrective maintenance procedures to replace defective vacuum tubes are given. Note: In April 1975 course was modified to include the AN/WRC-1 radio receiver and power amplifier subsystem.
Credit Recommendation: In the vocational certificate category, 2 semester hours in transmitter repair and maintenance (9/77).

NV-1715-0532

Basic Electricity and Electronics for Torpedoman's Mate

Course Number: K-123-571.
Location: Fleet Anti-Submarine Warfare School, San Diego, CA.
Length: 8 weeks (240 hours).
Exhibit Dates: 5/64–12/68.
Objectives: To train enlisted personnel to use and understand electricity, electronic devices, and standard test equipment.
Instruction: Lectures and practical exercises in the use of electricity, electronic devices, and standard test equipment, including basic electricity principles; vacuum tube electronics; introduction to transmitters, receivers, and component subsystems; and electronic test equipment.
Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity and electronics (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity and electronics (4/74); in the upper-division baccalaureate category, 2 semester hours in electricity and electronics on the basis of institutional evaluation (4/74).

NV-1715-0533

P-3C Communication/Navigation Organizational Maintenance

Course Number: C-102-3591.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 9 weeks (360 hours).
Exhibit Dates: 11/72–Present.
Objectives: To train fleet maintenance personnel who have had previous training in basic electronics to operate, test, and troubleshoot the P-3C communications and navigation systems.
Instruction: Lectures and practical exercises in the operation, testing, and troubleshooting of the P-3C communications and navigation radar, radar altimeters, radio navigation systems, teletype, teleprinter, digital data link, and computer general information.
Credit Recommendation: In the vocational certificate category, 6 semester hours in communications and systems maintenance (4/74); in the lower-division baccalaureate/associate degree category, credit in communications and systems maintenance on the basis of institutional evaluation (4/74).

NV-1715-0534

AN/ASN-50 Attitude Heading Reference System Intermediate Maintenance

Course Number: Not available.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Key West, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 9/70–Present.
Objectives: To train electrical maintenance personnel to operate and maintain the attitude-heading reference system.
Instruction: Lectures and practical exercises in the operation and maintenance of the attitude-heading reference system, including special and general test equipment, component operation, and testing and repair procedures.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics on the basis of institutional evaluation (4/74).

NV-1715-0535

Mk 84 Fire Control System Technician

Course Number: A-121-0015.
Location: Guided Missiles School, Dam Neck, VA.
Length: 26–28 weeks (901–945 hours).
Exhibit Dates: 1/66–Present.
Objectives: To train maintenance personnel to maintain missile fire control systems.
Instruction: Lectures and practical experience in fire control systems maintenance, including digital system operation and functional analysis, software and hardware, naval operations with Mk 84 fire control systems, and operational and maintenance procedures.
Credit Recommendation: In the vocational certificate category, 4 semester hours in digital computer fundamentals, 4 in electronic system maintenance (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in digital computer fundamentals, 4 in electronic system maintenance, both on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 3 semester hours in digital computer fundamentals (4/74).

NV-1715-0536

Aviation Antisubmarine Warfare (AASW) Operator, Class A

Course Number: C-210-2010.
Location: Air Technical Training Center, Memphis, TN.
Length: *Version 1:* 12 weeks (383–460 hours). *Version 2:* 16–17 weeks (636–668 hours).
Exhibit Dates: *Version 1:* 4/72–Present. *Version 2:* 11/68–3/72.
Objectives: To provide enlisted personnel with training in the fundamentals of antisubmarine warfare.
Instruction: *All Versions:* Lectures and practical exercises in electricity and electronics, AC and DC fundamentals, block-diagram analysis of ASW systems, and use, maintenance, and repair of ASW equipment. *Version 2:* Instruction includes electronic devices and systems.
Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics, and additional credit in electricity or electronics on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 3 semester hours in electricity or electronics, 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0537

Aviation Fire Control Technician, Class A

Course Number: Not available.
Location: Air Technical Training Center, Memphis, TN.
Length: 11 weeks (440 hours).
Exhibit Dates: 6/66–12/68.
Objectives: To train graduates of the Avionics Fundamentals School to operate fire control equipment.
Instruction: Lectures and practical exercises in weapon system radar fundamentals, including alignment and troubleshooting techniques, basic test equipment, synchros and servos; gyroscopes, magnetic amplifiers, and accelerometers; transmitters, receivers, antenna, and power supplies; analog and digital computers operation and maintenance; and airborne weapon system radars, maintenance, bomb director systems, and safety precautions.
Credit Recommendation: In the vocational certificate category, 3 semester hours in radar principles, 1 in analog computers, 1 in

digital computer fundamentals (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in radar principles, 1 in analog computers, 1 in digital computer fundamentals, and, on the basis of institutional evaluation, additional credit computer fundamentals, and, on the basis of institutional examination, additional credit hour in digital computer fundamentals, and 1 in analog computers on the basis of institutional evaluation (4/74).

NV-1715-0540

AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 7 weeks (280 hours).

Exhibit Dates: 9/67–Present.

Objectives: To train maintenance personnel to operate and maintain AN/ASQ-56A integrated electronic control systems.

Instruction: Lectures and practical exercises in AN/ASQ-56A electronic control equipment operation and maintenance, including UHF transmitters, receivers, amplifiers, servos, antennas, and controls; IFF/SIF systems; power supply operation; TACAN system operation and maintenance; AGC and video circuits; block-diagram and circuit analysis; and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic equipment (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronic equipment, and credit in maintenance laboratory on the basis of institutional examination (4/74).

NV-1715-0541

Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (96 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train military personnel to maintain mobile electric power plants and control systems.

Instruction: Lectures and practical exercises in DC generator system, including maintenance publications, component repair, power system circuit analysis, and inspection and troubleshooting procedures; AC generator system, including power system circuit analysis, transformer-rectifier power supply, component repair, and inspection and troubleshooting procedures; and AC transistorized generator system, including control circuit components, circuit analysis, power supply, component repair, and inspection and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in power generator maintenance (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in power generator maintenance, and additional credit in power generator maintenance on the basis of institutional evaluation (4/74).

NV-1715-0542

RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance

Course Number: C-100-3743.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/67–12/68.

Objectives: To train maintenance personnel to operate, calibrate, and maintain RA-5C semiautomatic air data, flight reference, and flight control equipment.

Instruction: Lectures in flight control test bench introduction, flight parameter simulator, pressure and vacuum group and flight parameter simulator testing, flight reference analyzers testing, flight control simulator and control panel test bench, control and guidance test set group introduction, and flight control analyzer testing.

Credit Recommendation: In the vocational certificate category, 2 semester hours in flight control and simulator (4/74).

NV-1715-0543

RA-5C Photo Systems Electronics

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 12/65–12/68.

Objectives: To provide maintenance personnel with training in basic electricity and electronics.

Instruction: Lectures and practical exercises in basic electricity, including Ohm's law, Simpson 260 multimeter operation, series and parallel circuits, relay principles, and schematic reading; basic electronics, including resistors, inductance, capacitance, electron tubes introduction, power supplies filtering and regulation, amplifiers, oscillators, and coupling and tuned circuits; and transistors, including junction transistors, basic transistor circuitry, semiconductors, circuits schematic tracing, special maintenance considerations, and test equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic electricity and electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity and electronics (4/74); in the upper-division baccalaureate category, 2 semester hours in basic electricity and electronics, and additional credit in basic electricity or electronics on the basis of institutional evaluation (4/74).

NV-1715-0544

Communications Technician (M), Class A

Course Number: Not available.

Location: Naval School, Treasure Island, CA; Naval School, Great Lakes, IL.

Length: 28–38 weeks (980–1330 hours).

Exhibit Dates: 7/62–12/68.

Objectives: To train enlisted personnel to maintain naval electronic equipment.

Instruction: Lectures and practical exercises in AC and DC fundamentals and analysis; oscilloscope applications; pulse techniques; microwave techniques and control equipment; and electronic devices, including tubes and solid state, communication transmitters and receivers, teletype terminal and single-sideband equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 16 semester hours in basic electricity or radio electronics for the 28-week course, 22 in physics (electricity) and engineering electronics for the 38-week course (4/74).

NV-1715-0545

RADIAC Instrument Maintenance

Course Number: A-670-0020.

Location: *Version 1:* Damage Control School, Treasure Island, CA. *Version 2:* Naval Schools Command, Treasure Island, CA.

Length: *Version 1:* 5 weeks (82 hours). *Version 2:* 4 weeks (90 hours).

Exhibit Dates: *Version 1:* 8/70–Present. *Version 2:* 1/66–7/70; 1/66–3/68.

Objectives: To train enlisted personnel to be radiac technicians.

Instruction: Lectures and practical exercises in operation, maintenance, and repair of radiation related equipment, including dosage hazards; radiological monitoring and decontamination; basic nuclear physics; radiac computer indicator, detector, and calibrator maintenance; radioactive sources leak testing; atomic energy commission license requirements; electronics review; and standard test equipment operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in radiation equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in radiation equipment maintenance, and credit in physics laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 1 semester hour in radiation equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in radiation equipment maintenance, and credit in physics laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0546

Automatic Telephones, Class C

Course Number: A-623-0014.

Location: Training Center, Great Lakes, IL.

Length: 11 weeks (385 hours).

Exhibit Dates: 1/72–1/75.

Objectives: To train interior communication electricians to operate, maintain, and repair automatic telephone systems.

Instruction: Lectures and practical exercises in automatic telephone system operation, maintenance, and repair, including troubleshooting line circuits, multilined systems installation and troubleshooting, telephone circuits, circuit tracing, wiring, line finder and finder controls analysis, connector trouble analysis and test set operation, various line dial telephone systems operation, power equipment, and switches and relays.

Credit Recommendation: In the vocational certificate category, 6 semester hours in telephone repair, installation and maintenance (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in telephone repair, installation, and maintenance, and additional credit in telephone repair, installation, and maintenance on the basis of institutional evaluation (4/74).

NV-1715-0547

RA-5C Semi-Automatic Test Equipment Bomb Director

Course Number: C-100-3742.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 9/67–Present.

Objectives: To train maintenance personnel to operate, service, maintain, and calibrate a bomb director test group and test set for guidance control systems.

Instruction: Lectures and practical exercises in bomb director test group equipment testing and operation, including digital signal simulator and navigation aids analysis, radar and TV test equipment introduction, navigational equipment testing, and bomb director test set operation and maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in general equipment maintenance laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in general equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0548

OA-3734/ASM-77 Ballistic Computer Test Console Intermediate Maintenance

Course Number: C-150-3767.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 7 weeks (280 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train maintenance personnel with knowledge of ballistics computer theory to maintain the ballistics computer test console at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of semiautomatic ballistics computer test consoles, including block-diagram analysis, testing programs, theory of operation, ARA testing, equipment timing controls, order and information registers, and special operating procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0549

F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train maintenance personnel with knowledge of transistors and miniature component repair to maintain and repair the loft bomb computer and vertical flight reference system of the F-4J aircraft.

Instruction: Lectures and practical exercises in the maintenance and repair of the loft bomb computer and the vertical flight reference system of the F-4J aircraft, including circuits and gyro control system and functional testing of components for the two systems.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74).

NV-1715-0551

Mk V Atmosphere Analyzers

Course Number: F-623-031.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 6/71–Present.

Objectives: To train electricians and shipyard instrument technicians to operate, maintain, troubleshoot, and repair Mk V atmosphere analyzers.

Instruction: Lectures and practical exercises in the operation and maintenance of Mk V atmosphere analyzers, including equipment components and flow systems, the 3M System, theory of operation, electronic block diagrams, the strip chart recorder, and alignment and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0552

F-4B/J Air Data Computer Set Intermediate Maintenance

Course Number: C-602-3810.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA.

Length: 2–3 weeks (80–96 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train maintenance personnel with knowledge of transistors and miniature component repair to maintain the air data computer set on the F-4B/J aircraft.

Instruction: Lectures and practical exercises in the maintenance of the air data computer set on the F-4B/J aircraft, including components and functional analysis of the computer compensator, test equipment, and component repair and calibration.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74).

NV-1715-0553

AN/APN-130 Radar Navigation Set Intermediate Maintenance

Course Number: C-102-3032.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 3–4 weeks (132–160 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train maintenance personnel to maintain the APN-130 radar navigational system at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the APN-130 radar navigational system, including Doppler theory and system operation, power supply and test set operation, signal data converter (hover and navigate modes), modulation, summation circuits, and system alignment and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0554

Electronics Technician (ET) Senior Conversion

Course Number: Not available.

Location: Electronics Technician, Class A School, Treasure Island, CA; Electricity and Electronics, Class P School, Great Lakes, IL; Electrician's Mate, Class A School, San Diego, CA; IC Electrician, Class A School, San Diego, CA.

Length: 48 weeks (1440 hours).

Exhibit Dates: 1/55–12/68.

Objectives: To train enlisted personnel to be electronics technicians.

Instruction: Lectures and practical exercises in AC and DC fundamentals; series-parallel circuits and machinery; vacuum tubes; power supplies; audio, video, RF, and magnetic amplifiers; transmitter, receiver, oscillator, and TRF circuits; sonar and radar equipment maintenance; Loran equipment maintenance; teletypewriter terminal equipment maintenance; and electronics administration.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity or electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, 6 semester hours in physics, 12 in engineering electronics (12/68).

NV-1715-0555

Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D)

Course Number: E-2D-066.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 7 weeks (245 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train flight officers in the techniques of airborne antisubmarine warfare (AASW).

Instruction: Lectures and practical exercises in the operation of airborne antisubmarine warfare equipment and in AASW tactics, including oceanography and underwater acoustics principles, electronic warfare tactics, and equipment capabilities, limitations, and applications to submarine force missions.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74).

NV-1715-0556

Advanced First Term Avionics, Class B (AFTA)

Course Number: C-100-2010; C-111-2010.

Location: Air Technical Training Center, Memphis, TN.

Length: 26 weeks (1040 hours).

Exhibit Dates: 11/69–Present.

Objectives: To train graduates of avionics technician courses to troubleshoot, test, and maintain navigation and radar systems.

Instruction: Lectures and practical exercises in mathematics, including fundamentals of algebra, linear and quadratic equations, ratios, angles, trigonometric fundamentals, vectors, vector algebra, and use of slide rules; introduction to physics, including theory of matter, heat, light, sound, and cryogenics; simple DC and AC circuits, resonance, time constant, decibels, and ideal transistors; transistor theory, including biasing, load line analysis; equivalent circuits, RC, transformers, direct coupled amplifiers, feedback amplifiers, video amplifiers, and power amplifiers; power supplies, regulators, wave-shaping circuits, and oscillators;

fundamentals of computer logic and systems, with emphasis on maintenance of equipment; microwave principles, including characteristics of transmission lines, waveguides, cavities, antennas, microwave tubes and circuits; fundamentals of AM, FM, and SSB; and block diagrams and functional operation of navigation and radar systems, with emphasis on maintenance and repair.

Credit Recommendation: In the vocational certificate category, 12 semester hours in mathematics and electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in mathematics, 6 in electronics (4/74); in the upper-division baccalaureate category, 3 semester hours in mathematics, 6 in engineering electronics (12/68).

NV-1715-0557

AN/SPS-40 Radar System
(Electronics Technician AN/SPS-40 Radar Set Maintenance)

Course Number: A-104-0040; A-104-0041.

Location: Service Schools Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 8 weeks (240 hours).

Exhibit Dates: 7/72–9/77.

Objectives: To train enlisted personnel to operate and maintain the AN/SPS-40 radar set and associated test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SPS-40 radar set and associated test equipment, including detailed operation and troubleshooting procedures for power, hydraulic, antenna, timing, frequency generation, transmitter, receiver, moving-target indicator, and video distribution subsystems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (4/74).

NV-1715-0560

Oxygen Generator Electrical Model 6L16 (Enlisted)

Course Number: F-623-029.

Location: Submarine School, Groton, CT.

Length: 5 weeks (150 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train enlisted personnel who have backgrounds in electronics and electricity, magnetic amplifiers, and transistor theory to maintain and operate the 6L16 electrolytic oxygen generator.

Instruction: Lectures and practical exercises in the operation and maintenance of the 6L16 electrolytic oxygen generator, including the electrolytic process of producing oxygen; flow system analysis; functions of electronic control system; hydraulic flow components; electrolytic cells; power supplies and troubleshooting; annunciators (contact and magnetic amplifier types); pressure controller system function (operation and analysis); calibration; and troubleshooting and test procedures.

Credit Recommendation: In the vocational certificate category, credit in electronics laboratory or technical elective on the basis of institutional evaluation (4/74).

NV-1715-0561

S-2D/E AQA-4(V) Indicator Group System Intermediate Maintenance

Course Number: C-102-3617; C-102-135.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/66–Present.

Objectives: To train maintenance personnel to operate, test, and maintain the AN/AQA-4(V) indicator group system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/AQA-4(V) indicator group system, including circuit analysis of the lofar chain, the reference signal generator, the codar chain, and power supplies; overall and subsystem block-diagram analysis; and troubleshooting and repair procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0562

RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director

Course Number: C-102-195.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train maintenance personnel to service and maintain the TACAN portion of AN/ASQ-88 CNI systems and flight director groups.

Instruction: Lectures and practical exercises in the functional analysis of transceivers, pulse decoders, and flight director computers, with emphasis on troubleshooting and servicing procedures. This course is highly specialized and has limited educational value.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0563

AN/APX-64(V) IFF Transponder Set Intermediate Maintenance

Course Number: C-102-3065.

Location: Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Cp. Pendleton, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Meridian, MS.

Length: 3 weeks (120 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train electronic maintenance personnel to maintain, service, troubleshoot, and align AN/APX-64(V) IFF transponder sets.

Instruction: Lectures and practical exercises in basic IFF characteristics, block-diagram analysis, detailed logic and circuit theory, and maintenance and operating procedures for IFF transponders.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0564

Meteorological/Oceanographic Equipment Maintenance, Class C

Course Number: Not available.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: 17 weeks (680 hours).

Exhibit Dates: 5/68–Present.

Objectives: To train aviation and electronics technicians to operate and maintain meteorological and oceanographic equipment.

Instruction: Lectures and practical exercises in atom and electron theory; semiconductors, diodes, and transistors; amplifiers, bias and bias stabilization; practical transistor amplifiers; sine wave oscillators; switching, gating, and pulse circuits; weather radar operation and troubleshooting; facsimile transmission theory, operation, and troubleshooting; weathervision TV cameras, transmitters, receivers, and video monitors; sound systems and relays; upper-air sounding equipment, sensors, transducers, transmitters, and receivers analysis and troubleshooting; transmissometer and RVR converter; and oceanographic elements, thermometric devices, bathythermographs, and buoys.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics and electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics and electrical laboratory (4/74).

NV-1715-0565

Electricity, Electronics and Hydraulics, Class P
(E, E & H, Class P)

Course Number: A-041-0012.

Location: Service Schools Command, Great Lakes, IL.

Length: 14 weeks (420 hours).

Exhibit Dates: 2/68–1/74.

Objectives: To provide enlisted personnel with basic training in the maintenance of missile-launching and gun systems.

Instruction: Lectures and practical exercises in hydraulics, AC and DC circuits, synchro-servo systems, basic electronics, magnetic amplifiers, and circuit analysis.

Credit Recommendation: In the vocational certificate category, 15 semester hours in electricity and electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0566

Electronics Maintenance Course Interrogator Set AN/TPX-42A(V) 5, Class C

Course Number: C-103-2028.

Location: Air Technical Training Center, Glynco, GA.

Length: 14 weeks (560 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train electronics technicians who have had previous training in number systems, Boolean algebra, digital fundamentals, and solid-state theory to operate and maintain an AN/TPX-42(V) type 5 radar system installation and to use associated test equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of AN/TPX-42(V) type 5 radar system installations and the use of associated test equipment, including review of transistor theory, integrated circuits, basic logic elements, gates, adders, multivibrators, flip-flops, counters, multiplexers, shift registers, AC and DC conversion devices, interrogator set alignment and trouble analysis; and test equipment, interference blanker, video signal processor, indicator data processor, and indicator assembly, components, operation, and trouble analysis.

Credit Recommendation: In the vocational certificate category, 6 semester hours as a technical elective in electronics, 3 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as a technical elective in electronics (4/74); in the upper-division baccalaureate category, credit as a technical elective in electronics on the basis of institutional evaluation (4/74).

NV-1715-0568

QH-50C Weapons System Intermediate Electronics Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 8 weeks (320 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain Dash weapon systems and to use special support equipment.

Instruction: Lectures and practical exercises in maintenance and troubleshooting procedures for target control systems and QH-50C drone avionic systems, and use of standard and special support equipment. The course is extremely specialized and has very little technical information.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical and electronics laboratory (4/74).

NV-1715-0569

Advanced Naval Flight Officer Training, Airborne Electronic Warfare Phase

Course Number: Not available.

Location: Naval Air Station, Corpus Christi, TX.

Length: 8–9 weeks (146–160 hours).

Exhibit Dates: 3/73–Present.

Objectives: To provide officers with basic knowledge and skills prerequisite to operational training in electronic warfare replacement training squadrons.

Instruction: Lectures and practical exercises in basic electronics theory, electronic support measures, electronic countermeasures operator techniques, planning and analysis procedures, and electronic warfare evaluation procedures. The material presented in this course is at a very basic survey level.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0570

Basic Point Defense Officer

Course Number: A-2F-0035.

Location: Guided Missiles School, Mare Island, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train junior officers to perform and supervise the maintenance of the basic point defense surface missile system.

Instruction: Lectures and practical exercises in the maintenance and maintenance management of the basic point defense surface missile system, including block diagrams, module and component identification, the 3M system, planned maintenance system, specific missile equipment, ancillary equipment and fire control system, launching system, tactical operations, alignment and adjustments, and electromagnetic interference and support.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0571

Strike Armament Intermediate Maintenance Repair

Course Number: C-646-3118.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 8 weeks (299 hours).

Exhibit Dates: 3/73–Present.

Objectives: To train enlisted personnel to inspect, test, and repair assembly aviation armament equipment.

Instruction: Lectures and practical exercises in the inspection, testing, and repair of assembly aviation armament equipment (VA-VF type), including the 3M system, operation of airborne missile launchers, suspension and releasing equipment analysis, rocket and flare dispensers, specific aircraft gun components and operation, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0572

Tartar Weapons Officer

Course Number: A-2F-0037.

Location: Guided Missiles School, Dam Neck, VA.

Length: 6 weeks (179 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train officers with previous gunnery experience to operate and maintain missile equipment on DDG-2 ships.

Instruction: Lectures and practical exercises in the operation and maintenance of missile equipment on the DDG-2 ships, including Tartar overview, search radar, specific radar equipment, cooling and dry air systems, system interface, target detection and identification, selection and tracking, controls and indicators for the master control panel, target evaluation, air ready mode, designation modes, FCS acquisition-to-track sequences, specific track modes, launching system, firing circuits, data flow, logistics, and administration procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0573

SWS (Strategic Weapons System) Command Polaris

(SSBN Command Weapons System Orientation—Polaris)

Course Number: A-2F-0023.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Guided Missiles School, Dam Neck, VA.

Length: 7 weeks (230–245 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train officers with submarine experience to operate the fleet ballistic weapons system.

Instruction: Lectures and practical exercises in the operation of fleet ballistic weapons systems, using a block diagram approach and includes principles of digital computers, data transmission systems and inertial instruments, operation and administration of subsystem equipment, tactical applications, weapons subsystem equipment, and re-entry system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1715-0574

Missile Technician Polaris

(Missile Technician Polaris, 598/608 Class)
(Missile Technician, Class C (1), Polaris)
(MTC1 Polaris Missile Technician Maintenance, Class C)

Course Number: A-121-0249; A-121-0016.

Location: Submarine Training center, Pacific, Pearl Harbor, HI; Guided Missiles School, Dam Neck, VA.

Length: 21–22 weeks (770–834 hours).

Exhibit Dates: 1/64–Present.

Objectives: To study the theory of operation, fault isolation, and to make repairs on a Polaris missile system.

Instruction: A study of the operation and schematic analysis of a missile system including circuit and logic diagrams for control, sequential operations, displays, alarms, and power supplies; environmental systems using pneumatic displays, electronic monitoring equipment and electrical controls utilizing relay logic. Perform fault isolation, make adjustments, calibrate, troubleshoot, and repair missile systems.

Credit Recommendation: 1/2LOW 6 semester hours in electronics technology (9/77).

NV-1715-0575

Missile Launcher Mk 21 Mod 2 Theory and Operation

Course Number: F-633-013.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–Present.

Objectives: To provide fleet ballistic missile officers and enlisted personnel with advanced refresher training in theory and operation of Polaris launching systems.

Instruction: Lectures and practical exercises in operation, capabilities and limitations, and systematic evaluation of problems for the Mk 21 Mod 2 Polaris launching systems, components, and support systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0576

Poseidon Missile Technician Conversion (A-2/A-3 to C-3)

Course Number: A-121-0139.

Location: Guided Missiles School, Dam Neck, VA.

Length: 13 weeks (446 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train Polaris missile technicians to maintain and test Poseidon missiles.

Instruction: Lectures and laboratories in flight control systems, Poseidon missile launching systems, fire control systems, Poseidon guidance computers, inertial components, temperature-monitoring and control groups, missile test and readiness equipment, electronic counters, electronic voltmeters, oscilloscopes, and digital computer fundamentals.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0577

SSBN Mk 84 Polaris Weapons Officer

Course Number: A-2F-0034.
Location: Guided Missiles School, Dam Neck, VA.
Length: 10 weeks (350 hours).
Exhibit Dates: 2/72–Present.
Objectives: To familiarize officers with the capabilities and limitations of fleet ballistic missile system equipment.
Instruction: Lectures and practical exercises in capabilities, functions, and principles of operation of the subsystems and components of fleet ballistic missile systems.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74). ; No credit because of the limited technical nature of the course (4/74).

NV-1715-0578

Sonar Technician Class A-2 (Intermediate Electronics)

Course Number: K-130-559.
Location: Fleet Anti-Submarine Warfare School, San Diego, CA.
Length: 14 weeks (420 hours).
Exhibit Dates: 6/68–Present.
Objectives: To provide enlisted personnel with a basic review of mathematics and electricity, and advanced training in DC and AC circuit theory, electronics, and servos.
Instruction: Lectures and practical exercises in basic mathematics and electricity; AC circuit theory, including inductance, capacitance, and resonance; electronics, including vacuum tubes, transistors, amplifiers, oscillators, and servos; and digital and analog computer fundamentals.
Credit Recommendation: In the vocational certificate category, 16 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electricity or electronics (4/74).

NV-1715-0579

RA-5C AN/ASB-12 Bomb Directing Set Organizational Maintenance

Course Number: C-111-3743.
Location: Air Maintenance Training Detachment, Albany, GA.
Length: 7 weeks (280 hours).
Exhibit Dates: 3/70–Present.
Objectives: To train maintenance personnel to operate and maintain AN/ASB-12 bomb-directing sets.
Instruction: Lectures and practical exercises in bombing computer systems, television systems, and system testing.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (4/74).

NV-1715-0580

Sonar Technician Class A-1 (Basic Electronics)

Course Number: K-130-560.
Location: Fleet Anti-Submarine Warfare School, San Diego, CA.
Length: 10 weeks (300 hours).
Exhibit Dates: 6/68–Present.
Objectives: To provide enlisted personnel with training in basic electrical and electronic fundamentals.
Instruction: Lectures and practical exercises in basic AC and DC electrical fundamentals and circuit theory; basic electronics, including vacuum tubes, power supplies, synchros, and servos; use of common hand tools; basic motors; and electronic maintenance procedures. Note This evaluation based only on 4 weeks of the 10-week course; the remaining 6 weeks are apparently classified for military security reasons.
Credit Recommendation: In the vocational certificate category, 5 semester hours in electricity and electronics and additional credit on the basis of institutional evaluation (see Note above) (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics and additional credit on the basis of institutional evaluation (see Note above) (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (see Note above) (4/74);

NV-1715-0581

IOIC Electronic Data Processing Maintenance

Course Number: D-150-010.
Location: Reconnaissance Attack Squadron Three, Albany, GA.
Length: 19 weeks (760 hours).
Exhibit Dates: 1/69–Present.
Objectives: To train data systems technicians to troubleshoot and repair electronic data processing equipment.
Instruction: Lectures and practical exercises in Integrated Operational Intellingence Center (IOIC) systems cross-training; operation and maintenance of magnetic tape processors, interface equipment, digital computers, and high-speed line printers; and use of test equipment for troubleshooting and repair.
Credit Recommendation: In the vocational certificate category, 6 semester hours in computer electronics, 2 in computer electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer electronics, 1 in computer electronics laboratory (4/74).

NV-1715-0582

AN/ASA-47 Doppler/Airmass Navigational Computer System Intermediate Maintenance

Course Number: C-102-3554.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 2–3 weeks (80–120 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train fleet maintenance personnel to maintain the AN/ASA-47 Doppler air mass navigational computer system.
Instruction: Lectures and practical exercises in the maintenance of the AN/ASA-47 Doppler air mass navigational computer system, including circuit analysis of components (position indicator, computer, and latitude-longitude indicator), operation of special support equipment, and alignment procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74).

NV-1715-0583

AN/APN-182(V) Radar Navigational Set Intermediate Maintenance

Course Number: C-102-3398.
Location: Air Maintenance Training Detachment, Quonset Point, RI.
Length: 6 weeks (240 hours).
Exhibit Dates: 2/73–Present.
Objectives: To train maintenance personnel to maintain the AN/APN-182(V) radar navigation set at the intermediate level.
Instruction: Lectures and practical exercises in the maintenance of the AN/APN-182(V) radar navigation set, including a brief discussion of Doppler theory, logic circuits, digital circuits, integrated circuits, specific equipment component breakdown, test set operation, power supply and receiver transmitter unit, clock circuits and tracker, digital scaler, summing amplifiers, demodulator, function board, and troubleshooting and alignment.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics, 2 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics, 3 in electronics laboratory (4/74).

NV-1715-0584

AN/APN-154(V) Radar Beacon Intermediate Maintenance

Course Number: C-102-3031.
Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA.
Length: 2 weeks (64 hours).
Exhibit Dates: 2/72–Present.
Objectives: To train maintenance personnel to maintain the AN/APN-154(V) radar beacon at the intermediate level and to use associated test equipment.
Instruction: Lectures and practical exercises in the maintenance of the AN/APN-154(V) radar beacon and the use of associated test equipment, including controls and indicators, block diagrams and signal flow, component characteristics, electrical characteristics, and alignment and troubleshooting techniques.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74).

NV-1715-0585

Mk 88 Mod 1 Fire Control Technician Conversion (Mk 80 & 84 to Mk 88)

Course Number: A-121-0137.
Location: Guided Missiles School, Dam Neck, VA.
Length: 16 weeks (490 hours).
Exhibit Dates: 10/72–Present.
Objectives: To train fire control system technicians to operate and maintain the Mk 88 fire control system and associated nontactical equipment.
Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 88 fire control system and associated nontactical equipment, including system components; weapon system orientation (Poseidon missile operation, circuit analysis, guidance computer, inertial guidance com-

ponents, power distribution, launching system, and data flow interface); digital geoballistic computer arithmetic, memory, program control, input/output devices, and loading; digital transmitter-receiver core memory and list processor; magnetic disk file memory and programming, and the subsystems of the Mk 88 system.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics, 2 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electronics laboratory (4/74).

NV-1715-0586

MK 152 COMPUTER AND PERIPHERAL EQUIPMENT/COMMON CORE

Course Number: A-150-0083; A-150-0084.

Location: Guided Missiles School, Mare Island, CA; Guided Missiles School, Dam Neck, VA.

Length: 12 weeks (324 hours).

Exhibit Dates: 6/71–Present.

Objectives: To train fire control technicians to operate, adjust, and maintain the Mk 152 computer and peripheral equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 152 computer and peripheral equipment, including block diagram of computer complex, review of computer number systems, manual operation, instruction word analysis and operation, computer logic operations, sequence analysis, control instruction analysis, logical and arithmetic instruction analysis, and diagnostic routines for the specific computer equipment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in computer electronics, 1 in computer electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer electronics, 1 in computer electronics laboratory (4/74).

NV-1715-0587

GYROCOMPASS TECHNICIAN ELECTRICAL, CLASS C1

(Electrical Gyrocompass Operation Maintenance Technician, Class C)

2. GYROCOMPASS TECHNICIAN—ELECTRICAL, CLASS C

Course Number: *Version 1:* A-670-0021. *Version 2:* A-670-021.

Location: Interior Communications Class C School, Great Lakes, IL.

Length: *Version 1:* 9 weeks (253–270 hours). *Version 2:* 12 weeks (320 hours).

Exhibit Dates: *Version 1:* 11/72–Present. *Version 2:* 1/68–10/72.

Objectives: To train communications electricians to operate and repair Mk 23 and Mk 19 gyrocompasses.

Instruction: *All Versions:* Lectures and practical exercises in the operation and maintenance of Mk 23 and Mk 19 gyrocompasses, including theory of operation, special test equipment, electrical checks, servo and follow-up loop adjustment, AC and DC power supplies, various circuits, auxiliary operating modes, and various component and subsystem analyses. *Version 2:* Includes corrective maintenance procedures and tender systems tests.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electromechanical systems and 2 in electromechanical laboratory (9/77). *Version 2:* In the vocational certificate category, 6 semester hours in electronics, 2 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electronics laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0588

AN/BST-1 TENDER MAINTENANCE

Course Number: F-623-035.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train communications electricians or electronics technicians to maintain and operate the AN/BST-1 system.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/BST-1 system, including system power supplies, special transistors, launch control subsystem circuitry and arming, monitor circuits, signal unit, launch control test set, detonator resistance and electrical cable test set, pressure switch test set, buoy subsystem, electrical control system, programmer and associated test set, transmitters, handling and rigging procedures, and voltage regulator for the subsystem.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0589

AIR LAUNCHED WEAPONS GUIDED MISSILE INTERMEDIATE MAINTENANCE

Course Number: C-122-3111.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel to operate and maintain air-launched guided missiles.

Instruction: Lectures and practical exercises in the operation and maintenance of air-launched guided missiles, including operation, testing, and components of specific air-to-air and air-to-surface guided missiles.

Credit Recommendation: Credit is not recommended because of the limited technical nnature of the course (4/74).

NV-1715-0590

ELECTRONICS TECHNICIAN, AN/SRN-14, OMEGA RECEIVER MAINTENANCE, CLASS C

Course Number: A-102-0088.

Location: Electronics Technician Class C School, Norfolk, VA.

Length: 5 weeks (200 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to operate and maintain AN/SRN-14 Omega receiving sets.

Instruction: Lectures and laboratories in the operation, maintenance, and repair of Omega receivers; system circuit analysis; and use of tools and test equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0591

AN/APX-72 RADAR INDENTIFICATION SYSTEM INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/68–Present.

Objectives: To train maintenance personnel to maintain, repair and test AN/APX-72 radar identification systems.

Instruction: Lectures and practical exercises in block-diagram analysis of radar identification systems, and use of prescribed test equipment in troubleshooting, repairing, bench testing, and aligning radar identification systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronic equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0592

QH-50D OPERATIONAL TELEMETRY MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Dam Neck, VA.

Length: 9 weeks (360 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train electronics technicians who have experience in Dash weapons systems maintenance to maintain and service Dash operational telemetry systems.

Instruction: Lectures and practical exercises in the block-diagram analysis, circuit operational analysis, systems maintenance, and repair of QH-50D telemetry systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic systems maintenance (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronic systems maintenance on the basis of institutional evaluation (4/74).

NV-1715-0593

1. RADARMAN, CLASS B, OPERATIONAL PHASE

2. RADARMAN, CLASS B, MAINTENANCE PHASE

(Radarman, Class B)

Course Number: *Version 1:* A-221-012. *Version 2:* Not available.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA; Naval Schools Command, Treasure Island, CA.

Length: *Version 1:* 9 weeks (264 hours). *Version 2:* 33–42 weeks (1350 hours).

Exhibit Dates: *Version 1:* 3/69–Present. *Version 2:* 1/56–2/69.

Objectives: To train radarmen to operate Combat Information Centers and to train CIC personnel to analyze radar circuit operation and repair equipment.

Instruction: *Version 1:* Lectures and practical exercises in the operation of Combat

Information Centers and training of CIC personnel, including electronic warfare principles, navigation and plotting, communications procedures, naval tactics, and training methods. *Version 2:* Lectures and practical exercises in radar circuit operation and equipment repair, including basic electricity and electronics, radar system components, overall system functions, field maintenance, and maintenance supervision.

Credit Recommendation: *Version 1:* Credit is not recommended because of the military-specific of the course (4/74). *Version 2:* In the vocational certificate category, 3 semester hours in basic electricity, 7 in radio/electronics, 2 in equipment maintenance (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic electricity, 9 in radio/electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in electricity, 7 in radio or electronics (4/74).

NV-1715-0594

F-4J AN/AWG-10 Transmitter and Antenna Positioning Intermediate Maintenance

Course Number: C-602-3817.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/69–Present.

Objectives: To train maintenance personnel familiar with AN/AWG-10 equipment and component repair to maintain, at the intermediate level, transmitter and antenna-positioning portions of the AN/AWG-10 missile control system.

Instruction: Lectures and practical exercises in the maintenance of transmitter and antenna-positioning portions of the AN/AWG-10 missile control system, including block-diagram and circuit analysis of specialized radar equipment, power supplies, pulse circuitry, timing, antenna control and scan pattern generator, velocity signal computer and antenna servo, antenna operation, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic systems maintenance (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronic systems maintenance on the basis of institutional evaluation (4/74).

NV-1715-0595

Radioman, Class A

Course Number: *Version 1:* A-201-0014; A-202-0014. *Version 2:* A-201-013; A-201-014; A-202-014. *Version 3:* Not available.

Location: Naval School, San Diego, CA; Naval School, Bainbridge, MD.

Length: *Version 1:* 14 weeks (560 hours). *Version 2:* 14 weeks (412 hours). *Version 3:* 24 weeks (720 hours).

Exhibit Dates: *Version 1:* 7/72–Present. *Version 2:* 1/67–6/72. *Version 3:* 8/56–12/66.

Objectives: To train enlisted personnel as radio communications operators.

Instruction: *All Versions:* Lectures and practical exercises in the operation of radio communications systems, including teletypewriter equipment and procedures, radio principles, message processing, circuit drill and operation, receivers and transmitters, security procedures, and operation of specific communications equipment. *Version 1:* Includes maintenance procedures, ancillary equipment, emergency communications. *Version 2:* Includes voice circuits and voice relay equipment, basic frequency theory, block diagrams, telegraph use, administration, and function of teletypewriter units and associated equipment. *Version 3:* Includes sound power and radiotelephone procedures, basic electricity and electronics, block diagrams, telegraph use, function of teletypewriter units and associated equipment, test equipment and adjustment, equipment components, and preventive and operational maintenance procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in radio operation (4/74). *Version 2:* In the vocational certificate category, 2 semester hours in electrical laboratory (4/74). *Version 3:* In the vocational certificate category, 4 semester hours in electricity or electronics, 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68), and credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (4/74).

NV-1715-0596

A-6 AN/APQ-92 Search Radar and Associated Test Equipment Intermediate Maintenance

Course Number: *Version 1:* C-111-3761. *Version 2:* Not available. *Version 3:* Not available.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: *Version 1:* 13 weeks (520 hours). *Version 2:* 12 weeks (480 hours). *Version 3:* 8 weeks (320 hours).

Exhibit Dates: *Version 1:* 9/71–Present. *Version 2:* 1/70–8/71. *Version 3:* 2/68–12/69.

Objectives: To train enlisted personnel to operate, troubleshoot, and maintain the AN/APQ-92 search radar and associated test console.

Instruction: *All Versions:* Lectures and practical exercises in the operation, troubleshooting, and maintenance of the AN/APQ-92 search radar and associated test console, including various radar displays, block-diagram analysis, components, and assembly of the electrical synchronizer, transmission chain circuits, servo electronics unit, antenna/receiver, and related circuits. *Version 1:* Includes control signals, additional circuit analyses, bombardier/navigator control box operation, video processor, and terrain clearance equipment. *Version 2:* Includes control signals, additional circuit analyses, bombardier/navigator control box operation, video processor, and terrain clearance equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 7 semester hours in electrical equipment maintenance laboratory (4/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in electrical equipment maintenance laboratory on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 6 semester hours in electrical equipment maintenance laboratory (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electrical equipment maintenance laboratory on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 4 semester hours in electrical equipment maintenance laboratory (4/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electrical equipment maintenance laboratory on the basis of institutional evaluation (4/74).

NV-1715-0597

Terrier Radar Set AN/SPG-55B Mod 5 (Fleet Input)

Course Number: A-104-0143; A-104-0144.

Location: Guided Missiles School, Dam Neck, VA; Combat Systems Technical School Command, Mare Island, CA.

Length: 19 weeks (651–690 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train fire control technicians to operate, maintain, and repair AN/SPG-55B Mod 5 radar set.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of AN/SPG-55B Mod 5 radar set, including use of electronic testing equipment (oscilloscopes, multimeters, and signal generators), Terrier weapons system description, various modes of operation, power supplies, synchronizer, timing circuits, electronic countermeasures, various circuit analyses, frequency monitoring, operation of various channels, range and beacon tracking, alignment and systems tests, and radiation and monitoring information.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electronic equipment usage (4/74); in the lower-division baccalaureate/associate degree category, credit in electronic maintenance equipment usage on the basis of institutional evaluation (4/74).

NV-1715-0598

Tradevman School, Class B

Course Number: *Version 1:* C-191-2011. *Version 2:* Not available. *Version 3:* Not available. *Version 4:* Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: *Version 1:* 21–22 weeks (850–874 hours). *Version 2:* 23 weeks (920 hours). *Version 3:* 35 weeks (1412 hours). *Version 4:* 35–36 weeks (1416–1440 hours).

Exhibit Dates: *Version 1:* 6/72–Present. *Version 2:* 10/71–5/72. *Version 3:* 7/68–9/71. *Version 4:* 5/56–6/68.

Objectives: To train tradevmen to operate and maintain training equipment.

Instruction: *All Versions:* Lectures and practical experience in mathematics, basic electricity, amplifiers, power supplies, test equipment, video tape recorders, avionics physics, digital computer circuits, programming, device simulation, air conditioning, and closed-circuit television operation and maintenance. *Version 3:* Instruction includes communications circuits and analog computers. *Version 4:* Instruction includes communications circuits and analog computers.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in basic mathematics, 3 in electricity and electronics, 1 in television principles, 3 in digital computers introduction, 2 in computer laboratory, 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics on the basis of institutional evaluation, 3 in electricity and electronics, 1 in television principles on the basis of institutional evaluation, 3 in introduction to digital computers, 2 in computer laboratory, and 2 in electrical laboratory on the basis of institutional evaluation (4/74); up 3 semester hours in electricity or electronics, 3 in introduction to digital computers, 2 in computer laboratory, and 2 in electrical laboratory, all on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 1 semester hour in basic mathematics, 3 in electricity and electronics, 2 in television principles, 3 in introduction to digital computers, 2 in computer laboratory, 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics on the basis of institutional evaluation, 3 in electricity and electronics, 2 in television principles on the basis of institutional evaluation, 3 in digital computer introduction, 2 in computer laboratory, and 2 in electrical laboratory on the basis of institutional evaluation (4/74); up 3 semester hours in electricity or electronics, 3 in introduction to digital computers, 2 in computer laboratory, and 2 in electrical laboratory, all on the basis of institutional evaluation (4/74). *Version 3:* In the vocational certificate category, 1 semester hour in basic mathematics, 3 in basic electricity, 3 in electronics, 3 in receiver and transmitter circuits, 3 in introduction to analog computers, 3 in introduction to digital computers, 2 in television principles, 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic mathematics on the basis of institutional evaluation, 3 in basic electricity, 3 in electronics, 3 in receiver and transmitter circuits, 3 in introduction to analog computers, 3 in introduction to digital computers, 2 in television principles on the basis of institutional evaluation, and 2 in electrical laboratory (4/74); in the upper-division baccalaureate category, 3 semester hours in basic electricity, 3 in electronics, 3 in receiver and transmitter circuitry, 3 in introduction to analog computers, 3 in introduction to digital computers, and 2 in electrical laboratory, all on the basis of institutional evaluation (4/74). *Version 4:* In the vocational certificate category, 1 semester hour in basic mathematics, 3 in basic electricity, 5 in electronics, 3 in receiver and transmitter circuits, 2 in introduction to digital computers, 1 in introduction to analog computers, 2 in television principles, and 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in basic electricity, 5 in electronics, 3 in receiver and transmitter circuits, 2 in introduction to digital computers, 1 in introduction to analog computers, and 2 in electrical laboratory, all on the basis of institutional evaluation (4/74).

NV-1715-0599

AIRBORNE EARLY WARNING/ELECTRONICS COUNTERMEASURES EVALUATOR, CLASS O

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 7 weeks (272 hours).

Exhibit Dates: 10/65–12/68.

Objectives: To train junior line officers to operate airborne early warning and electronic countermeasures equipment.

Instruction: Lectures and practical exercises in the operation of airborne early warning and electronic countermeasures equipment, including associated electronics equipment components and operation, signal evaluation, airborne navigation fundamentals, communications, control, weather and reporting, early warning tactics, and radar navigation fundamentals.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74). ; No credit because of the military nature of the course (4/74).

NV-1715-0600

P-3 PB20N AUTOMATIC FLIGHT CONTROL SYSTEM MAINTENANCE, NO. 13

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (104 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train electrical maintenance personnel familiar with P-3 aircraft systems to maintain and operate the PB20N automatic flight control system.

Instruction: Lectures and practical exercises in the maintenance and operation of the PB20N automatic flight control system as installed in the P-3 aircraft, including system components, power supply and monitor, hydraulic booster assembly, trim circuits, gyro systems, controls, amplifier and computer, signal chain and channel, test sets, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74).

NV-1715-0601

RA-5C FLIGHT CONTROL AND ELECTRICAL SYSTEMS ELECTRONICS INTERMEDIATE MAINTENANCE

Course Number: C-602-3750; C-602-223.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/69–Present.

Objectives: To train maintenance personnel who have experience on transistorized equipment and RA-5C flight control systems to operate and test the electronic equipment in the flight control and electrical systems of RA-5C aircraft.

Instruction: Lectures and practical exercises in the operation and testing of the electronic equipment in the flight control and electrical systems of RA-5C aircraft, including system electronics; various amplifier, balancer, and compensator components and operations; and electrical systems electronics maintenance and operation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0602

TALOS GUNNER'S (MISSILE) HANDLING

Course Number: Not available.

Location: Naval Schools Command, Mare Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train gunner's mates to assemble, disassemble, and replace modules of the Talos guided missile and to test and service the missile using specialized equipment.

Instruction: Lectures and practical exercises in the assembly, disassembly, and replacement of modules and the testing and servicing of Talos guided missiles, including aerodynamics, input power and major assemblies of test equipment, receiving and pretest inspection, preventive maintenance, and component handling.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0603

TERRIER/TARTAR GUNNER'S MATE

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train gunner's mates to maintain and repair Terrier and Tartar guided missile test equipment.

Instruction: Lectures and practical exercises in the maintenance and repair of Terrier and Tartar guided missiles, including assembly, disassembly, and replacement of faulty modules; hydraulic fill, bleeding, and testing; internal configuration and block diagrams; containers; special tools; test set operation; flight sequences; ordnance components of homing missiles and beam-riding missiles; and beam-riding and homing principles.

Credit Recommendation: In the vocational certificate category, credit in electrical laboratory on the basis of institutional evaluation (4/74); low credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0604

POSEIDON MISSILE TECHNICIAN

Course Number: A-121-0138.

Location: Guided Missiles School, Dam Neck, VA.

Length: 18 weeks (557 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train graduates of the Polaris Electronics School to perform as Poseidon missile technicians.

Instruction: Lectures and practical exercises in the operation and maintenance of Poseidon missile equipment, including ballistic missile flight, capabilities and limitations, missile construction, symbology, propulsion system, ordnance system, power generation and distribution, missile flight sequence, instrumentation, missile testing and results analysis, missile transfer equipment and procedures, external test equipment and simulators, individual package testing, special-purpose digital computers, and radiation and detection equipment.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (4/74).

NV-1715-0605

TERRIER WEAPONS

Course Number: A-2F-0039.

Location: Guided Missiles School, Dam Neck, VA.

Length: 6 weeks (192 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train officers who are graduates of Naval Gunnery School and who possess previous weapons/gunnery department experience to operate and maintain Terrier weapons systems on DLG-16 class ships.

Instruction: Lectures and practical exercises in the operation and maintenance of the Terrier weapons systems equipment on DLG-16 class ships, including weapons control, guided missile fire control system, search radar, missiles, guided missile launching systems, weapon system maintenance, flight analysis and system testing.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0606

SWS (Strategic Weapons System) Weapons Officer Polaris
(Mk 80 Weapons Officer)

Course Number: A-2F-0022.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Guided Missiles School, Dam Neck, VA.

Length: 8-10 weeks (248-350 hours).

Exhibit Dates: 1/70-Present.

Objectives: To train officers to supervise the operation and maintenance of fleet ballistic missiles.

Instruction: Topics cover terms, abbreviations, symbols, and diagrams used in electronics, servo systems, gyros, digital systems, and the physics of motion, light and fluids. Major emphasis is on practical exercises in the operation and maintenance of fleet ballistic missiles on 598 or 608 class SSBN submarines, including functional aspects of specific systems and subsystems, and emphasizing data flow, control and indications, switching, patching, casualty recognition, and readiness testing; and operation and monitoring of various system components and devices.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (9/77).

NV-1715-0607

Missile Technician Mk 84 Polaris (A-3)

Course Number: A-121-017.

Location: Guided Missiles School, Dam Neck, VA.

Length: 23 weeks (967 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train enlisted personnel to operate, test, and maintain missile equipment on Polaris FBM submarines.

Instruction: Lectures and practical exercises in the operation, testing, and maintenance of missile equipment on Polaris FBM submarines, including weapons system orientation, Polaris missile components, electrical subsystem, guidance subsystem characteristics and circuitry, guidance computer, timing, telemetry, fire control interface and timing, missile test and readiness equipment, specific module operation test set equipment, and radiation and detection equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0608

Talos Officers
(Talos Weapons/Fire Control/Missile Battery)

Course Number: A-2F-0013.

Location: Not available, Mare Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 6/72-Present.

Objectives: To train junior officers to supervise the maintenance of the Talos weapons system.

Instruction: Lectures and practical exercises in the maintenance and maintenance management of the Talos weapons system, including Talos system operation, search radar introduction, weapon direction system; specific equipment components; transmitter and microwave; receivers and ranging circuits; servos; associated computer equipment and logic introduction; launching system; Talos missile flight termination, propulsion, hydraulic, electrical, control, steering-intelligence, and anti-ship systems; target processing; telemetry; flight analysis; and system testing.

Credit Recommendation: In the vocational certificate category, 3 semester hours in missiles (4/74).

NV-1715-0609

Optical Landing Systems Maintenance, Class C

Course Number: C-670-2010.

Location: Technical Training Center, Lakehurst, NJ; Air Technical Training Unit, Philadelphia, PA.

Length: 6 weeks (240 hours).

Exhibit Dates: *Version 1:* 3/71-Present. *Version 2:* 4/66-2/71.

Objectives: To train communications electricians to troubleshoot and maintain the Fresnel Lens Optical Landing System Mk 6 Mod 1 and the manually operated visual landing aid system Mk I Mod 1, 2, and 3, or Mk II.

Instruction: *All Versions:* Lectures and practical exercises in the troubleshooting and maintenance of the Fresnel Lens Optical Landing System Mk 6 Mod 1 and the manually operated visual landing aid system Mk I Mod 1, 2, and 3, or Mk II, including electrical and solid-state devices, component identification, test equipment, indicator assembly stabilization, stabilization control equipment, reference lighting circuits, and lighting assembly. *Version 2:* Includes specific electrical basics.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, credit in electricity or electronics on the basis of institutional evaluation (4/74).

NV-1715-0610

UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Intermediate Maintenance
(UH-2C Automatic Stabilization Equipment Intermediate Maintenance)

Course Number: C-602-3388.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2-4 weeks (72-160 hours).

Exhibit Dates: 12/68-Present.

Objectives: To train maintenance personnel to test, maintain, and repair automatic stabilization equipment in UH-2C, HH-2C, and HH-2D helicopters.

Instruction: Lectures and practical exercises in the testing, maintenance, and repair of automatic stabilization equipment in UH-2C, HH-2C, and HH-2D helicopters, including operation of power supply circuitry, synchronization loop, amplifier-demodulator circuitry, roll channel, test sets, sensor unit, vertical gyro, accelerometer, actuators, and pitch, yaw, and collective channels.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74). ; No credit because of the limited technical nature of the course (4/74).

NV-1715-0611

F-4J AN/AWG-10 Antenna Control and Missile Control Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 8/68-Present.

Objectives: To train maintenance personnel familiar with miniature component repair and AN/AWG-10 equipment to maintain the antenna control and missile control portions of the AN/AWG-10 missile control system.

Instruction: Lectures and practical exercises in the maintenance of the antenna control and missile control portions of the AN/AWG-10 missile control system, including antenna control operation, scan pattern generator operation, velocity signal computer and antenna servo operation, specific missile auxiliary signal generator equipment analysis, missile drive tuners, launch signal and pilot command signal computers, circuits, and alignment and malfunction isolation procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0612

F-4J Communication Navigation Identification (CNI) Organizational Maintenance

Course Number: C-102-3815.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 1/73-Present.

Objectives: To train maintenance personnel to operate and maintain the F-4J CNI systems.

Instruction: Lectures and practical exercises in the operation and maintenance of the F-4J CNI systems, including compact wire bundle identification, communication equipment components, UHF communication and intercommunication systems, TACAN navigational set, navigational computer, radar altimeter, IFF transponder set, air-to-air identification, radar beacon, data link and instrument landing systems analysis, and check-out and trouble analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0613

F/RF-4B/J Automatic Flight Control Systems Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/71-Present.

Objectives: To train maintenance personnel who have completed courses in transistor and digital fundamentals to maintain the automatic flight control systems of the F-4B aircraft.

Instruction: Lectures and practical exercises in the maintenance of the automatic flight control systems of the F-4B aircraft (with and without data link), including component functions, surface control and flight control systems, block-diagram analysis, power supply and switching circuits, signal circuit analysis, automatic pilot coupler analysis, and test equipment operation and components.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (4/74).

NV-1715-0614

RF-4B Inertial Navigation System Organizational Maintenance

Course Number: C-102-3838.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel who have completed courses in digital and transistor fundamentals to operate and troubleshoot the AN/ASN-46A and the AN/ASN-74 inertial navigation systems.

Instruction: Lectures and practical exercises in the operation and troubleshooting of the AN/ASN-46A and the AN/ASN-74 inertial navigation systems, including navigational principles, terms and vectors; heading, attitude, and cockpit displays, block-diagram analysis, synchros, Boolean algebra, gyroscope principles, logic circuits, accelerometers and integrators, and alignment and testing procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1715-0615

A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator

Course Number: C-602-0057.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train maintenance personnel who have completed courses in transistor fundamentals and A-4 systems to operate and maintain the AN/AJB-3 and remote-standby, attitude-indicator systems.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/AJB-3 and remote-standby, attitude-indicator systems, including displacement gyro, compass adapter, bomb release computer, all-attitude indicator, and associated components of specific equipment; power supply and system analysis; and alignment and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74).

NV-1715-0616

SH-3A Automatic Stabilization Equipment Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 5 weeks (200 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel to maintain the SH-3A helicopter's automatic stabilization equipment at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the SH-3A helicopter's automatic stabilization equipment, including flight theory, stabilization problems, system functions, circuit analysis of control channels, test equipment, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (4/74).

NV-1715-0617

A-7 AN/ASW-26/30 Automatic Flight Control System Intermediate Maintenance

Course Number: C-602-3782; C-602-162.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (64 hours).

Exhibit Dates: 9/68–Present.

Objectives: To train fleet maintenance personnel who have backgrounds in A-7 systems to operate, test, troubleshoot, and maintain specific automatic flight control systems equipment at the intermediate level.

Instruction: Lectures and practical exercises in the operation, testing, troubleshooting, and maintenance of the AN/ASW-26 and AN/ASW-30 automatic flight control systems, including component theory, various module analyses, circuit analysis, modes of operation, yaw stabilization and control augmentation, trim theory, and specific component testing procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0618

Gunner's Mate Class C Rocket Launcher Mk 108

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 8 weeks (240 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train gunner's mates to operate, maintain, and repair the Mk 108 rocket launcher and associated components and support equipment.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of the Mk 108 rocket launcher and associated components and support equipment, including electrical control circuits, synchros, amplifiers, hydraulic control systems, launcher power drives, assembly and disassembly procedures, and test equipment.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0619

Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance

Course Number: C-122-3109.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train enlisted personnel to operate, calibrate, and maintain air-launched guided missile test equipment at the intermediate level.

Instruction: Lectures and practical exercises in the operation, calibration, and maintenance of air-launched guided missile test equipment, including principles of modulation, Doppler principles, and Sparrow III, Sidewinder, Shrike, and Walleye block-diagram analysis, data flow, test set operation and components, circuits, signal generation, electronic theory, power supplies, and detailed calibration procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic laboratory (4/74).

NV-1715-0620

Gunner's Mate Class C Guided Missile Launching System

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 24 weeks (620 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train gunner's mates to operate, maintain, and repair missile-launching systems.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of missile-launching systems, including configuration, characteristics, and performance of guided missiles; electrical and servo system input and output; power drive, testing of magnetic and electronic amplifiers, synchro servo systems, and hydraulic mechanical components; power supplies; electronic and hydraulic circuits; AC and DC amplifiers; oscilloscopes; modulator and demodulator units; fire-fighting equipment operation; and maintenance management.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0621

SH-3 Automatic Stabilization Equipment Intermediate Maintenance

Course Number: C-602-3398.

Location: Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 5–6 weeks (200–240 hours).

Exhibit Dates: 5/68–Present.

Objectives: To train maintenance personnel to maintain the SH-3 helicopter's automatic stabilization equipment at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance of the SH-3 helicopter's automatic stabilization equipment, including flight theory, controls, hydraulic systems and servos, pitch channel and vertical gyro operation, various signal paths and circuits, modulators and demodulators, monitor panel, test set operation, yaw channel familiarization, collective channel operation, cyclic coupler system components, and troubleshooting and test procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical laboratory (4/74).

NV-1715-0622

Talos Guided Missile and Guided Missile Test Set Maintenance

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 23 weeks (690 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train enlisted personnel to test and maintain Talos guided missiles, and to operate and maintain associated test sets and equipment.

Instruction: Lectures and practical exercises in the testing and maintenance of Talos guided missiles, and in the operation and maintenance of associated test sets and equipment, including description of the electrical, control, steering intelligence, mid-course guidance, terminal guidance and airborne flight evaluation systems; components and operation of specific guided missile test sets and fuze test equipment; and components of specific combined-unit telemeter ground stations and the Talos weapon systems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0623

Launcher Technician MK 88 Fire Control Conversion

Course Number: A-633-0015.

Location: Guided Missiles School, Dam Neck, VA.

Length: 2 weeks (63 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted personnel who have had training on the Polaris missile-launching system to operate and maintain mechanical and electrical subsystems of the Poseidon missile-launching systems.

Instruction: Lectures and practical exercises in the operation and maintenance of mechanical and electrical subsystems of Poseidon missile-launching systems, including principles of inertial guidance and flight control, warhead configuration, and deployment, principles of hydraulics and pneumatics, repair of the launch tube, missile ejector group and missile suspension system components; dissassembly and assembly of gas piston-operated pneumatic valves, advanced theory of specific valves, detailed logic and analysis of the solid-state integrated circuitry, and troubleshooting.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0624

Gunnery Officers (Relative Rate)

Course Number: J-2E-101.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 5/72–Present.

Objectives: To train junior officers from ships with specific gun mount and relative rate fire control systems to perform as gunnery officers.

Instruction: Lectures and practical exercises in fundamentals of gunnery, including target designation and acquisition, ammunition, magazines, small arms, target tracking, velocity computations, fire control principles, and alignment and repair of various systems and equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0625

Gunnery Officers—Weapons Department Officers

Course Number: J-2E-0100; J-2E-1002.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 4 weeks (140 hours).

Exhibit Dates: 5/72–Present.

Objectives: To train junior officers to perform as gunnery or fire control division officers.

Instruction: Lectures and practical exercises in the fundamentals of gunnery, including anti-air warfare and fire control principles, ammunition, ballistics, magazines, administrative procedures, small arms, gunfire analysis, target tracking, missile systems, and operation repair, and alignment of specific equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0626

Gunner's Mate Class C ASROC Launching Group

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 15 weeks (450 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train gunner's mates to operate, maintain, and repair advanced rocket-launching systems.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of advanced rocket-launching systems, including power supplies, electronic and hydraulic systems, control circuitry, launching machinery construction and operation, testing and monitoring of signal inputs, management procedures, and logistics.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0627

AN/ARW-77 Bullpup Guidance Control System

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/69–Present.

Objectives: To train maintenance personnel who have backgrounds in transistor fundamentals to maintain and operate the AN/ARW-77 Bullpup transmitter.

Instruction: Lectures and practical exercises in the maintenance and operation of the AN/ARW-77 Bullpup transmitter, including operational analysis, circuit analysis and block diagrams of the transmitter, amplifiers, control units, generator and mixer and command board, and testing, alignment, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (4/74).

NV-1715-0628

AN/DPM-7 Sparrow III Guided Missile Test Equipment Intermediate Maintenance

(Sparrow III Missile Test Equipment Maintenance Training-Depot Test Equipment of the AN/DPM-7)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, Miramar, CA.

Length: 4–5 weeks (160–200 hours).

Exhibit Dates: 7/67–Present.

Objectives: To train enlisted personnel to troubleshoot and maintain the Sparrow III missile and associated test equipment.

Instruction: Lectures and practical exercises in the troubleshooting and maintenance of the Sparrow III missile and the calibration and maintenance of associated test equipment, including check-out procedures, missile and test set, components, subassemblies, data flow, power supply block analyses, and test set repair procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (4/74).

NV-1715-0629

Class A Aviation Guided Missileman

Course Number: Not available.

Location: Aviation Guided Missileman School, Memphis, TN.

Length: *Version 1:* 27 weeks (1080 hours). *Version 2:* 24 weeks (960 hours).

Exhibit Dates: *Version 1:* 7/58–12/68. *Version 2:* 1/57–6/58.

Objectives: To teach enlisted personnel basic electronics and operation of electronic test equipment, and to train them to operate air-launched guided missiles.

Instruction: *All Versions:* Lectures and practical exercises in electronics fundamentals and operation of electronic test equipment, including AC and DC principles, radar electronics fundamentals, transmitter theory, transistors, amplifiers, vacuum tubes, various circuits, and receiver theory. *Version 1:* Includes receiver alignment and troubleshooting and antenna systems. *Version 2:* Includes gyros, synchros, and servos; guided missile components; and missile system testing.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 3 in electronic circuits (12/68). *Version 2:* In the vocational certificate category, 8 semester hours in electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 2 in electronic circuits (12/68).

NV-1715-0630

ASROC MISSILE ASSEMBLY AND MAINTENANCE

Course Number: K-121-1021.

Location: Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 8/72–Present.

Objectives: To train weapons and torpedo officers and designated strikers to assemble and maintain the Asroc missile.

Instruction: Lectures and practical exercises in the assembly and maintenance of the ASROC missile, including system components, testing, packaging, and safety, and specific-equipment test, repair, and maintenance.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0631

A-4 ARMAMENT SYSTEM ORGANIZATIONAL MAINTENANCE

Course Number: C-646-3716.

Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Beaufort, SC.

Length: 2 weeks (74 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train maintenance personnel with knowledge of the A-4 series aircraft and aviation or munitions fundamentals to maintain and operate the A-4 armament system.

Instruction: Lectures and practical exercises in the operation and maintenance of the A-4 armament system, including basic control analysis, alternate controls, gun control system, circuit analysis, fuze-arming system components, missile system components and launcher and tester, special weapons, and suspension and accessory equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0632

F-4B/J ARMAMENT, MISSILE AND WEAPONS CONTROL SYSTEM ORGANIZATIONAL MAINTENANCE

(F-4B/J Armament, Missile and Weapons Control System Maintenance)

Course Number: C-646-3806.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel with knowledge of electrical fundamentals to operate and maintain armament, missile, and weapon control systems equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of armament, missile, and weapon control systems equipment, including F-4B/J equipment, configuration, and control panels; specific guided missile launcher equipment circuitry, test sets, and operation; wing missile pylon operation; centerline system and wing fuel tank pylon operation and components, fuze function control system, multiple weapons system electrical operation, and miscellaneous systems and test sets.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0633

QH-50D WEAPONS SYSTEM ELECTRONIC INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Dam Neck, VA; Air Maintenance Training Detachment, North Island, CA.

Length: 6–8 weeks (200–320 hours).

Exhibit Dates: 1/68–Present.

Objectives: To train maintenance personnel to maintain the DASH weapons system electronic system.

Instruction: Lectures and practical exercises in DASH avionics system maintenance and troubleshooting procedures, including radio receiver and decoder functional analysis; automatic flight control system power distribution, gyroscope theory, directional gyroscope operation, barometric altimeter, and circuitry; radio receiving set organizational maintenance, flight control test set maintenance, and special support equipment maintenance; and functional check-out and system troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (4/74).

NV-1715-0634

TALOS COMPUTER MK 111 MOD 1

Course Number: A-150-0027.

Location: Naval Schools Command, Mare Island, CA.

Length: 18–20 weeks (515 hours).

Exhibit Dates: 1/71–Present.

Objectives: To train fire control technicians to operate and maintain the Mk 111 Mod 1 computer.

Instruction: Lectures and practical exercises in the operation and maintenance of the Mk 111 Mod 1 computer, including basics of analog computers, oscillograph recording systems, modes of operation of the specific equipment, system testing, and special-purpose test equipment.

Credit Recommendation: Insufficient data for evaluation (4/74).

NV-1715-0635

AIRBORNE RADAR INTERCEPT OPERATOR

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 9–10 weeks (352–392 hours).

Exhibit Dates: 10/65–Present.

Objectives: To train enlisted personnel to perform as airborne radar intercept operators.

Instruction: Lectures and practical exercises in airborne radar intercept operations, including communications and navigation equipment, flight line procedures, survival equipment, jet operation, general aircraft systems, meteorology, cruise control, approaches, computer-based solutions, navigation procedures, voice procedures, intercept procedures and tactics, radar fundamentals, path analysis, and Sidewinder intercepts.

Credit Recommendation: Credit is not recommended because of the limited technical nnature of the course (4/74).

NV-1715-0636

CONALOG II MAINTENANCE (SPERRY)

Course Number: A-623-0033; F-623-027.

Location: Submarine School, Groton, CT.

Length: 5 weeks (200 hours).

Exhibit Dates: 3/67–Present.

Objectives: To train enlisted personnel to operate and maintain the submarine pictorial display and control system (CONALOG).

Instruction: Lectures and practical exercises in the operation and maintenance of the submarine pictorial display and control system, including functional block analysis, data flow within systems, power supplies, and test set and associated testing procedures for the specific equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0637

S-2D/E AN/ARN-52(V) NAVIGATIONAL TACAN MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Key West, FL.

Length: 3 weeks (120 hours).

Exhibit Dates: 9/66–12/68.

Objectives: To train enlisted personnel who have had training in basic transistors to operate and maintain the AN/ARN-52 navigational TACAN.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ARN-52 navigational TACAN, including theory of operation, power supply, analysis of various circuits, and block-diagram analysis for range- and bearing-measuring circuitry.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0638

1. ELECTRONICS TECHNICIAN, CLASS A, PHASE SEIR (SHIPBOARD EQUIPMENT INDOCTRINATION, RADAR)
2. ELECTRONICS TECHNICIAN, CLASS C, SHIPBOARD EQUIPMENT INDOCTRINATION (RADAR)

Course Number: *Version 1:* A-104-0012. *Version 2:* A-104-012; A-104-013.

Location: Service School Command, Treasure Island, CA; Service School Command, Great Lakes, IL.

Length: *Version 1:* 8 weeks (290 hours). *Version 2:* 12 weeks (472 hours).

Exhibit Dates: *Version 1:* 7/74–9/77. *Version 2:* 4/68–6/74.

Objectives: To train graduates of basic electronics courses to operate, maintain, and repair electronic equipment in shipboard radar systems.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of electronic equipment in shipboard radar systems, including basic theory of radar repeaters and identification systems, repair and replacement of modular assemblies, logical troubleshooting procedures, and operation and analysis of various components in specific indicator group equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (9/77). *Version 2:* In the vocational certificate category, 3 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, credit in electrical laboratory on the basis of institutional evaluation (4/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (4/74).

NV-1715-0639

1. Electronics Technician, Class A, Phase SEIN (Shipboard Equipment Indoctrination, Communications)
2. Electronics Technician, Class C Shipboard Equipment Indoctrination (Communications)

Course Number: *All Versions:* A-102-0012. *Version 2:* A-102-012; A-102-013.

Location: Service School Command, Treasure Island, CA; Service School Command, Great Lakes, IL.

Length: *Version 1:* 8 weeks (250 hours). *Version 2:* 12 weeks (357 hours).

Exhibit Dates: *Version 1:* 7/74–9/77. *Version 2:* 3/68–6/74.

Objectives: To train electronics technicians to operate, maintain, and repair shipboard electronics communications equipment.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of shipboard electronics communications equipment, including principles and operation of transmitters, oscillators, and antennas; circuit diagrams for major components; transceiver and telegraph terminal equipment; telecommunications fundamentals; controls; and testing and installation procedures.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in communications equipment (9/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in communications laboratory (9/77). *Version 2:* In the vocational certificate category, 6 semester hours in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory, and additional credit in electrical laboratory on the basis of insitiutional evaluation (4/74).

NV-1715-0640

1. P-3C Sensor Station Three (Radar/Display Technician) Organizational Maintenance
2. P-3C Sensor Station Three (Radar/Displays) Integrated System Organizational Maintenance

Course Number: C-102-3593.

Location: Naval Air Maintenance Training, Jacksonville, FL; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: *Version 1:* 12 weeks (480 hours). *Version 2:* 9 weeks (360 hours).

Exhibit Dates: *Version 1:* 11/72–Present. *Version 2:* 1/72–10/72.

Objectives: To train fleet maintenance personnel to operate and maintain P-3C Sensor Station Three radar/display systems.

Instruction: *All Versions:* Lectures and practical exercises in the operation and maintenance of P-3C Sensor Station Three radar/display systems, including specific equipment components, block diagrams, trouble analysis, and adjustment; radar and IFF systems, magnetic anomaly detection system, and low-light-level television system. *Version 1:* Includes functions of logic units for specific display equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in electronic equipment maintenance on the basis of institutional evaluation (4/74). *Version 2:* In the vocational certificate category, 6 semester hours in electronic equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0641

S-2D/E Avionics Systems Organizational Maintenance

Course Number: C-602-3611.

Location: Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train maintenance personnel to maintain S-2D/E avionics systems.

Instruction: Lectures and practical exercises in the maintenance of S-2D/E avionics systems, including block diagrams of various electronic systems, use of specialized test equipment, intercommunications equipment operation and troubleshooting, IFF equipment, Doppler navigation equipment operation, and components and testing of specific subsystems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic systems maintenance (4/74).

NV-1715-0642

Submarine Interior Communications (IC) Systems

Course Number: F-623-016.

Location: Submarine School, Groton, CT.

Length: 4 weeks (120 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train submarine personnel to operate and maintain shipboard communications systems and associated equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of shipboard communications, systems and associated equipment, including theory of operation, component parts, introductory mathematics, basic electricity and electronics, transformer theory, and analysis of motor-generator controls, ship speed monitors, hydrogen detectors, synchro systems, announcing systems, and talkback and electrical control systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electricity (4/74).

NV-1715-0643

1. Radarman, Class A
2. Class A Radarman School (Operational Course)

Course Number: Not available.

Location: Naval Schools Command, Treasure Island, CA.

Length: *Version 1:* 20 weeks (600 hours). *Version 2:* 12 weeks (480 hours).

Exhibit Dates: *Version 1:* 9/58–12/68. *Version 2:* 10/56–8/58.

Objectives: To train enlisted personnel to perform as on-board radar repairmen.

Instruction: *All Versions:* Lectures and practical exercises in the functions of on-board radar repairmen, including operation and maintenance procedures for specific radar equipment, air and surface search and height-finding radar sets and associated remote repeaters, air plotting and maneuvering, tactics and radar navigation, communications equipment, and test sets. *Version 1:* Includes basic electricity and electronics and special radar circuits. *Version 2:* Includes countermeasures equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in electricity or electronics, 5 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68). *Version 2:* In the vocational certificate category, 5 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in electricity or electronics on the basis of institutional evaluation (4/74).

NV-1715-0644

F/RF-8 Shoehorn Organizational Maintenance

Course Number: C-102-3851.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 3–4 weeks (100–160 hours).

Exhibit Dates: 6/71–Present.

Objectives: To train fleet maintenance personnel to operate and maintain a Shoehorn electronic countermeasures system.

Instruction: Lectures and practical exercises in the operation and maintenance of a Shoehorn electronic countermeasures system, including basic principles of sound, logic, and radar; introduction to electronic countermeasures; Shoehorn system and component block diagram and locations; peripheral equipment; testing procedures; and hard line and connector repair.

Credit Recommendation: In the vocational certificate category, 1 semester hour in equipment maintenance on the basis of institutional evaluation (4/74); in the lower-division baccalaureate/associate degree category, credit in equipment maintenance on the basis of institutional evaluation (4/74).

NV-1715-0645

AN/SPA-62 Countermeasures Receiving Group, Class C

Course Number: A-104-025.

Location: Electronics Technician, Class C School, Treasure Island, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 10/68–Present.

Objectives: To train personnel with prior technical training in the operation, maintenance, and repair of the AN/SPA-62 countermeasures receiving group.

Instruction: Lectures and practical exercises on the operation, maintenance, and repair of the AN/SPA-62 countermeasures receiving group, including maintenance and material management, special circuits and semiconductor devices used in the AN/SPA-62, system block diagram, operating procedures, printed circuit board repair techniques, radar set modifications, receiver, trigger and gate generator, normal and ECCM video realignment, power supplies, and control monitor.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic maintenance techniques (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic maintenance techniques on the basis of institutional evaluation (4/74).

NV-1715-0646

Intermediate Aviation Fire Control Technician, Class B

Course Number: Not available.

Location: Air Technical Training Center, Memphis, TN.

Length: 34 weeks (1360 hours).

Exhibit Dates: 4/59–12/68.

Objectives: To provide aviation fire control technicians with supplemental training in electronics maintenance.

Instruction: Lectures and practical exercises in the intermediate maintenance of aviation fire control equipment, including electricity and mathematics, principles of electronics, advanced electronics, and essentials of fire control; supervisory training; and supply procedures.

Credit Recommendation: In the vocational certificate category, 5 semester hours in basic electric circuits, 5 in electronic circuits, 1 in analog computers, 1 in digital computers, 4 in electronics laboratory, 1 in maintenance supervision, and 1 in maintenance coordination (4/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in engineering electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in basic electric circuits, 5 in electronic circuits on the basis of institutional evaluation, 1 in analog computers on the basis of institutional evaluation, 1 in digital computers on the basis of institutional evaluation, 2 in electronic laboratory on the basis of institutional evaluation, credit in maintenance supervision on the basis of institutional evaluation, and, for non-science majors, 1 in maintenance coordination (4/74).

NV-1715-0647

Class A Guided Missileman

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA.

Length: 24 weeks (725 hours).

Exhibit Dates: 6/59–12/68.

Objectives: To train personnel to perform as junior guided missilemen.

Instruction: Lectures and practical exercises on the basic electronics and circuits of guided missiles, including magnetic amplifiers, oscillators, transmitters, transmission lines, TRF receivers, superheterodyne receiver, transistors, radar special circuits, and principles of guided missiles and nuclear weapons.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics or electricity, 2 in electrical laboratory (4/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in electronics or electricity (12/68); in the upper-division baccalaureate category, 1 semester hour as an elective in electronics or electricity, 1 in electrical laboratory (4/74).

NV-1715-0648

Aviation Ordnanceman, Class A

Course Number: C-646-2010.

Location: Air Technical Training Center, Memphis, TN, Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 9 weeks (297 hours). *Version 2:* 13–18 weeks (505–720 hours).

Exhibit Dates: *Version 1:* 6/74–Present. *Version 2:* 5/63–5/74.

Objectives: To train enlisted personnel to perform as aviation ordnancemen.

Instruction: Lectures and practical exercises in the functions of aviation ordnancemen, including elementary algebra and mathematics, physics, electrical fundamentals, electronic fundamentals, aircraft ordnance and electrical armament circuits, assembly and disassembly of guided missiles, aircraft machine gun and small arms repair, ammunition handling, pyrotechnics, underwater munitions and special weapons, ordnance administration, and test units for specific equipment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in mathematics and 3 in basic electricity (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity (6/75). *Version 2:* In the vocational certificate category, 8 semester hours in electricity or electronics (4/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (4/74); in the upper-division baccalaureate category, credit in electricity or electronics on the basis of institutional evaluation (4/74).

NV-1715-0649

Terrier Weapon Direction System Mk 3 (DE Mk 9)

Course Number: Not available.

Location: Service Schools Command, Great Lakes, IL.

Length: 20 weeks (600 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train enlisted personnel to maintain and repair weapons direction systems.

Instruction: Lectures and practical exercises in the maintenance and repair of weapons direction systems, including Terrier weapon system fundamentals; analysis of weapons direction systems, including power supplies, simulating system, sweep generation and deflection, video and tracking systems, symbol generation and display, target evaluation, director-channel switching, designation data converting system, weapons assignment, and casualty analysis; and related computer and systems equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics, 1 in electronics laboratory (4/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in electronics (4/74).

NV-1715-0650

A-6 Data Processing Unit and Associated Test Set Intermediate Maintenance

Course Number: C-102-3775.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train maintenance personnel to operate, maintain, and troubleshoot the A-6 data processing unit and DPU test set.

Instruction: Lectures in data processing unit and DPU test set monopulse theory, description, purpose, block-diagram and circuit analysis, functional operation, circuit theory, shop procedures, system check-out and repair procedures, and safety procedures.

Credit Recommendation: Insufficient data for evaluation (3/74).

NV-1715-0652

1. Gunner's Mate, Class A1
2. Gunner's Mate Class A, Phase I (A-1)

Course Number: A-041-0010.

Location: Service Schools Command, Great Lakes, Il.

Length: *Version 1:* 12 weeks (400 hours). *Version 2:* 16 weeks (447 hours).

Exhibit Dates: *Version 1:* 2/74–Present. *Version 2:* 2/68–1/74.

Objectives: To train enlisted personnel to operate and maintain gun mount and missile launching systems.

Instruction: *Version 1:* Lectures and practical exercises in AC and DC motors, generators, gearing systems, servos, basic vacuum tube and transistor electronics, fundamental fluid mechanics, munitions, small arms and fire control systems. *Version 2:* Lectures and practical exercises in electrical fundamentals, including elements, matter, electron theory, magnetism, AC and DC theory and circuitry, and application of circuits including transformers; equipment and machinery construction and operation, including gun mounts, and surface-to-air and surface-to-underwater missile launching systems; control systems fundamentals, and standard and digital computers used for solving control problems; hand tools usage; small arms operation; explosives characteristics; hydraulics; and synchro-servo systems troubleshooting and alignment.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electricity and electronics laboratory and 1 in munitions laboratory (9/77). *Version 2:* In the vocational certificate category, 4 semester hours in electricity (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity (6/75).

NV-1715-0653

Gunner's Mate Class A, Phase II (A-2)

Course Number: A-041-0011.

Location: Service Schools Command, Great Lakes, IL.

Length: 7 weeks (163 hours).

Exhibit Dates: 2/68–12/73.

Objectives: To train gunner's mates to operate the electronics systems contained in missile launching systems.

Instruction: Lectures and practical exercises in the operation of the electronics systems in missile launching systems, including theory of operation and construction of vacuum tube, solid-state circuits, and magnetic amplifiers; circuit analysis techniques; weapons department organization; and troubleshooting of electronic circuitry.

Credit Recommendation: In the vocational certificate category, 7 semester hours in electronic fundamentals (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronic fundamentals and 1 in electronic laboratory (6/75).

NV-1715-0654

Mk 9 and Mk 10 5"/38 Caliber Twin Gun Mount Power Drive Maintenance

Course Number: K-041-2060.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel to operate, maintain, and repair the Mk 9 and

Mk 10 Ford power drives and indicator-receiver regulators.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of the Mk 9 and Mk 10 Ford power drives and indicator-receiver regulators, including elementary hydraulics, electric circuits, control systems, disassembly and assembly, and adjustment procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1715-0655

3"/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35)

Course Number: J-113-1202.

Location: Fleet Combat Direction Systems Training Center, Atlantic, Dam Neck, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train gunnery personnel to test, adjust, and maintain the 3"/50 caliber rapid fire gun mount.

Instruction: Lectures and practical exercises in the testing, adjustment, and maintenance of the 3"/50 caliber rapid fire gun mount, including basic electricity and electronics, power, gun, and motor field control circuits; parallax system operation; elevation and train receiver regulators; amplifier cabinet components; gun mechanism; loader drive operation, main cam shaft operation; feeding and shifting mechanism; timing; brake system; and lubrication procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (4/74).

NV-1715-0656

Data Systems Technician, Class C, Peripherial Group RD-281(V)/UYK Recorder Reproducer Magnetic Disk File Equipment Maintenance

Course Number: A-150-0067.

Location: Naval Schools Command, Mare Island, CA.

Length: 5 weeks (150 hours).

Exhibit Dates: 4/70–Present.

Objectives: To train enlisted personnel to operate and maintain a recorder-reproducer magnetic disk RD-281/UYK.

Instruction: Lectures and practical exercises in disk file familiarization, programming considerations, disk file adjustment and maintenance, instruction set familiarization, and malfunctions isolation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0657

Mardan/Verdan Computer Theory

Course Number: F-193-084.

Location: FBM Submarine Training Center, Charleston, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train the navigation electronics technician to operate the MARDAN or VERDAN computer and to understand its theory of operation.

Instruction: Lectures in MARDAN or VERDAN computer operation, including Boolean algebra review, computer program loading, power sequencing and protective circuitry, GP arithmetic operations, digital differential analyzer operation and mechanization, input/output operation, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0658

Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS)

Course Number: A-121-0180.

Location: Guided Missiles School, Dam Neck, VA.

Length: 11 weeks (470 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to operate and maintain the Terrier digital fire control weapons system and to supervise its operation, maintenance, and testing.

Instruction: Lectures and practical exercises in Terrier weapons system introduction; ship sensors and search radars, including three-dimensional ones; fire control systems, including gunfire and underwater fire; power distribution and control circuits; tactical data systems; weapons direction system; guided missile fire control system data flow and interface; launching system and Terrier missile; and weapons system testing and alignment procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (3/74).

NV-1715-0659

P-3 Power Generating System and AVQ-2 Searchlight Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/71–Present.

Objectives: To train maintenance personnel to test, troubleshoot, and repair the P-3 generator, supervisory panel, buss transfer relay, deicer timer, and a specific searchlight.

Instruction: Lectures and practical exercises in the testing, troubleshooting, and repair of the P-3 generator, supervisory panel, buss transfer relay, deicer timer, and the AVQ-2C searchlight, including use of oscilloscope and multimeter in the troubleshooting, operation, and repair of the various components of the power-generating system, and searchlight components, operation, test and repair procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour as an elective in electricity (5/74).

NV-1715-0660

Motion Picture Projection System Maintenance, Class C

Course Number: A-690-0014; A-690-0015.

Location: Naval School, San Diego, CA; Naval School, Norfolk, VA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train projectionists to maintain, troubleshoot, and repair JAN 16mm sound motion picture projectors.

Instruction: Lectures and practical exercises in JAN 16mm sound motion picture projector maintenance, troubleshooting, and repair, including mechanical and electrical components, power supply and vacuum tube amplifier theory, and audio system troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in media, 3 in audio-visual equipment repair (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in media, 1 in audio-visual technology, 1 as an elective in electrical technology, 1 as an elective in electromechanical technology (3/74).

NV-1715-0661

Stromberg Carlson Automatic Telephone XY Switching System Maintenance, Class C1

Course Number: A-623-0043.

Location: Service School Command, Great Lakes, IL.

Length: 7 weeks (220 hours).

Exhibit Dates: 12/74–Present.

Objectives: To train personnel in the maintenance, repair and checkout of automatic electric telephone systems.

Instruction: Areas of instruction include the Stromberg Carlson automatic telephone system, relaying fundamentals, analysis of system design, priorities and faults.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone switch gear (9/77).

NV-1715-0662

Model 28 ASR Teletype Maintenance

Course Number: A-160-0023.

Location: Teletype Maintenance Class C School, Norfolk, VA; Teletype Maintenance Class C School, San Diego, CA.

Length: 9–10 weeks (307–328 hours).

Exhibit Dates: 10/71–Present.

Objectives: To train personnel to install, maintain, and repair Mod 28 automatic send and receive teletypes (AN/UGC-6K, AN/UGC-20 and AN/UGC-6K modified for low-level keying), and in methods for planned maintenance system implementation.

Instruction: Lectures and practical exercises in installation, maintenance, and repair of Mod 28 automatic send and receive teletypes and in the implementation of maintenance data collection systems, including introductions to AN/UGC-6K, automatic typer, keyboard, perforator and reperforator, and transmitter distributor; operation of electrical components; troubleshooting of the AN/UGC-6K; introduction to the AN/UGC-20 and to various teletype equipment; and introduction to low-level keying.

Credit Recommendation: In the vocational certificate category, 6 semester hours in teletypewriter maintenance (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electrical technology, mechanical technology, or electromechanical technology (5/74).

NV-1715-0663

Teletype Maintenance, Class C, Low Level Keying Teletype Maintenance

Course Number: A-160-0052; A-160-0053.

Location: Naval Schools Command, Norfolk, VA; Service School Command, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 1/71–Present.

Objectives: To train enlisted personnel to install low-level modification kits and to adjust, maintain, and repair the Mod 28 teletypwriter.

Instruction: Lectures and practical exercises in the installation, adjustment, maintenance, and repair of MOD 28 teletypwriter equipment modified for low-level keying, including electrical orientation; semiconductor fundamentals; radio frequency and electromagnetic interference; purpose and construction of MK-1088/UG modification kit; modes of operation; circuit symbols, electrical service assemblies, and options; test equipment; circuit card analysis; modification kit installation; adjustments; converter; repair; and troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in teletype maintenance (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in mechanical, electrical, or electromechanical technology (5/74).

NV-1715-0664

1. Teletype Reperforator TT-253/UGC Combined Maintenance
2. Teletypewriter Reperforator TT-253/UG Series and Teletypewriter Distributor TT187/UG Series

(Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines)

(Teletypewriter Reperforator TT-253/UG)

Course Number: *All Versions:* A-160-0076. *Version 2:* L-160-0012; L-160-012.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: *Version 1:* 4 weeks (120 hours). *Version 2:* 4-5 weeks (120-150 hours).

Exhibit Dates: *Version 1:* 4/74-Present. *Version 2:* 7/69-3/74.

Objectives: To train rated personnel to operate and maintain TT-253/UG teletypewriter reperforators, TT-187/UG distributor transmitters, and associated equipment.

Instruction: Lectures and practical exercises on the operation and maintenance of TT-253/UG teletypewriter reperforators and TT-187/UG distributor transmitters, including general system information; theory of system operation; and service and repair of these distributor-transmitters.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electromechanical technician training (9/77). *Version 2:* In the vocational certificate category, 3 semester hours in teletypewriter reperforation (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in electro-mechanical technology (5/74).

NV-1715-0665

Teletypewriter System (Afloat) Maintenance Models TT70A/UG and AN/UGC-5 TT-252 Typing Perforator

Course Number: K-160-262.

Location: Fleet Training Group, Pearl Harbor, HI.

Length: 6 weeks (180 hours).

Exhibit Dates: 4/66-12/68.

Objectives: To train enlisted personnel on TT-70A teletypewriters and on AN/UGC-5 perforators.

Instruction: Lectures and practical exercises on the operation and preventive maintenance of TT-70A/UG teletypewriters and the operation of the typing perforator TT-252/UG, including teletypewriter introduction, Mod 28 component parts, keyboard and adjustments, automatic typer and adjustments, theory of perforator operation, the TT-252/UG typing perforator, and punching, tape feed, printing operation, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 4 semester hours in teletypewriter operation and repair (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in electromechanical technology (5/74).

NV-1715-0666

P-3TT-264/AG Teletypewriter Group Maintenance, No. 20

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 3/68-Present.

Objectives: To train maintenance personnel to repair specific teletypewriters.

Instruction: Lectures and practical exercises in the servicing and maintenance of a teletypewriter. Course includes all elements of the teletypewriter ribbon-feed group, printer breakdown, motor servicing, magnetic selector, selector clutch-release system, the printing system, character advance and carriage return, advance prevention, print-prevention system, and general troubleshooting.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical technology (5/74).

NV-1715-0667

5"/54 Rapid Fire Mount Fuzesetter, Train and Elevation (Servo Amplifier System)

Course Number: K-041-2029.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/69-Present.

Objectives: To train enlisted personnel to operate and maintain a specific artillery fuzesetter and fire control equipment.

Instruction: Lectures and practical exercises on a specific artillery fuzesetter and fire control equipment. Course includes power supplies and servo units, signal tracing, sequence control circuits, use of schematics, and the operation and maintenance of AC and DC amplifiers.

Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in electronics (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour as an elective in electronics (5/74).

NV-1715-0668

5"/54 Mount Rapid Fire Mk 42 Mod 7 Operation and Maintenance

Course Number: J-041-0128; K-041-2056.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 10/71-Present.

Objectives: To train enlisted personnel to operate and maintain a gun mount.

Instruction: Lectures and practical exercises in the operation and maintenance of a gun mount. Course includes basic electricity, electrical control systems, and the general operation of a 5-inch gun mount.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electricity (5/74).

NV-1715-0669

Marine Air Traffic Control Unit Auxiliary Equipment Maintenance, Class C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 6/69-Present.

Objectives: To train enlisted personnel to operate, maintain, and repair specific AC generators and air conditioners.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of auxiliary equipment. Course includes simple DC circuits, conductors, insulators, resistors, inductance, capacitance, basic electrical indicating instruments, AC generators, transformers, AC motors, semiconductor fundamentals, rectifiers, starting currents, fault currents, battery charging circuits, and air conditioning fundamentals.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical and air conditioning fundamentals (3/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical and air conditioning fundamentals (3/74).

NV-1715-0670

1. Air Traffic Control Electronics Maintenance Officers, Class O
2. Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 4 weeks (144 hours). *Version 2:* 4 weeks (152 hours).

Exhibit Dates: *Version 1:* 6/70-Present. *Version 2:* 8/65-5/70.

Objectives: To train electronics maintenance officers to supervise the installation, maintenance, and repair of air traffic control systems associated with ground-controlled approach units and air traffic control centers.

Instruction: *All Versions:* Lectures and practical exercises in the installation, maintenance, and repair of air traffic control systems associated with ground-controlled approach units and air traffic control centers, including organization and installation requirements, air traffic control system complexes, principles and characteristics of air traffic control systems, test equipment and inspections, communications, supply and maintenance procedures, and flight testing. *Version 1:* Includes system siting, radar and radio principles and navigational aids.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited technical nature of the course (3/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1715-0671

SP-2 AN/APS-20B/E Radar Set Intermediate Maintenance Course

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 7/69–Present.

Objectives: To train maintenance personnel in the maintenance, repair, and functional testing of the AN/APS-20B/E radar set at the intermediate level.

Instruction: Lectures and practical exercises in the maintenance, repair, and functional testing of the AN/APS-20B/E radar set, including theory of operation of the AN/APS-20B/E; radar set control C-1449/APS-20B/E; low-voltage power supply PP-347/APS-20B/E; electrical synchronizer SN-55/APS-20B/E; transmitter T-467/APS-20B/E; high-voltage control; radar IF amplifiers; receiver R-251/APS-20B/E and duplexer; and indicator IP-414-A/APA-125.

Credit Recommendation: In the vocational certificate category, credit in radar on the basis of institutional evaluation (6/74).

NV-1715-0672

E-2A AN/APS-96 Search Radar Intermediate Maintenance

Course Number: C-102-3471.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 7–8 weeks (280–320 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel to maintain the AN/APS-96 search radar set at the intermediate and organizational levels.

Instruction: Lectures and practical exercises in the intermediate maintenance of the AN/APS-96 search radar, including transmit operation; receive operation; miscellaneous equipments functional description; introduction to pulse compression techniques; functional theory; trigger timer and synchronizer theory; theory of operation of specific delay line, radio frequency oscillator, radar receiver, radar modulator, and trigger pulse amplifier; power supplies; and control circuits, system emergency mode, and test operations.

Credit Recommendation: In the vocational certificate category, credit in radar on the basis of institutional evaluation (6/74).

NV-1715-0673

Naval Tactical Data System (NTDS)—Data Input—Basic
(Naval Tactical Data System (NTDS) Tracker/Supervisor)

Course Number: K-221-0039; K-221-1010.

Location: Fleet Combat Training Center, Pacific, San Diego, CA; Fleet Combat Training Center, Atlantic, Dam Neck, Virginia Beach, VA.

Length: 3 weeks (98–120 hours).

Exhibit Dates: 5/72–Present.

Objectives: To train enlisted personnel to perform as detector-trackers, identification operators, or track supervisors.

Instruction: Lectures and practical exercises on the Naval Tactical Data System (NTDS) including introduction to NTDS, NTDS block-diagram analysis, data display equipment, manual air tracking, surface tracking, tracking considerations, identification, IFF/SIF/PIF, track supervisor, system tracking, NTDS communications, universal keyset, navigation keyset, utility mode, data links, beacon video processor, ECM supervisor, ECM keyset, height/size, and communication security and user overview.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (6/74).

NV-1715-0674

Basic Naval Tactical Data System (NTDS) Air Intercept Controller

Course Number: K-2G-0027; K-221-0027.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 6 weeks (173 hours).

Exhibit Dates: 6/72–Present.

Objectives: To train officers and radarmen to perform as basic NTDS air intercept controllers.

Instruction: Lectures and practical exercises in air intercept control, including fleet anti-air warfare, threat intelligence, interceptor aircraft characteristics and air-to-air weapons systems, air navigation aids, communications equipment, intercept control communications procedures and vocabulary, radar indicator equipment, identification equipment, and preparation and procedures for NTDS control.

Credit Recommendation: In the vocational certificate category, credit in aircraft traffic control operation on the basis of institutional evaluation (6/74).

NV-1715-0675

Mark 105 Underwater Fire Control System (UWFCS) Mod 28

Course Number: Not available.

Location: Fleet Sonar Schools, Key West, FL; Fleet Sonar Schools, San Diego, CA.

Length: 16 weeks (507 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train personnel in the maintenance of the Mk 105 Mod 11-23 underwater fire control system (UWFCS).

Instruction: Lectures and practical exercises in the maintenance of the Mk 105 11-23 UWFCS, including introduction to the weapon system; equipment testing, trouble analysis, basic component adjustments; angle solver mechanical components and special circuits; computer description, instrumentation, control, basic circuits, maintenance and operation; trainable and fixed weapon data flow, equipments; Hedgehog control equipment; pocket control equipment; and torpedo control equipment.

Credit Recommendation: Insufficient data for evaluation (6/74).

NV-1715-0676

Acoustic Anti-Submarine Operator Transition

Course Number: E-210-53.

Location: Fleet Airborne Electronics Training Unit, Pacific, Moffett Field, CA.

Length: 3 weeks (98 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train the acoustic AW in DIFAR equipment operation.

Instruction: Lectures and practical exercises on DIFAR equipment operation, including acoustic sensor signal generator and listening devices, sonobuoy receiver system, AN/AQA-7 systems analysis, signal flow, frequency spectrum, nondirectional modes of operation, range mode of operation, acoustic recorder/reproducer, time code generator, and capabilities of sensor station 1 and 2.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0677

SH-3 AN/AQS-13 Sonar Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Ream Field, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 8/67–12/68.

Objectives: To train enlisted personnel to operate and maintain sonar systems.

Instruction: Lectures and practical exercises in the maintenance of a specific sonar system. Topics include sonar fundamentals, semiconductor theory and circuits, cathode ray tube (CRT) operation, power supply elements and operation and use of test equipment, and discussion of transmitters, receivers, transducers, display devices, amplifiers, resolvers, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, credit in communications systems on the basis of institutional evaluation (6/74); in the lower-division baccalaureate/associate degree category, credit in communications systems on the basis of institutional evaluation (6/74); in the upper-division baccalaureate category, credit in communications on the basis of institutional evaluation (6/74).

NV-1715-0678

RADAR/MAD for Nonacoustic Operator P3A/B (D)

Course Number: E-210-45.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train VP antisubmarine warfare sensor operators in the operation of nonacoustic sensors.

Instruction: Lectures and practical exercises in nonacoustic sensors, including magnetic environment, equipment familiarization and procedures, magnetic compensation equipment and procedures, MAD signal interpretation, AN/AIC-22 intercommunication system, navigation plotter familiarization and application of navigation principles, radar fundamentals, radar equipment components and operating procedures, airborne recognition equipment and preflight procedures, and radar tactical employment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0679

Nonacoustic Antisubmarine Operator Transition P3C
(Nonacoustic Operator Transition)

Course Number: E-210-54.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 4 weeks (126 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train the nonacoustic AW operator in P3C procedures.

Instruction: Lectures and practical exercises in P3C procedures, including sensor station; search and localization sensors; radar principles; radar navigation principles; magnetic environment principles; electronic warfare principles; electronic intelligence recognition; sensor data display system; intercommunication system; radar scan converter system; MAD signal interpretation; emitter scan characteristics; threat signal identification; and 14B40 trainer laboratory.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1715-0680

BASIC DENTAL REPAIR TECHNICIAN
(Dental Technician Repair, Class C)
(Dental Repair Technician, Basic)

Course Number: B-670-10.

Location: National Medical Center, Bethesda, MD.

Length: 24 weeks (900 hours).

Exhibit Dates: 6/55–Present.

Objectives: To train personnel to perform as basic dental repair technicians.

Instruction: Lectures and practical exercises in the maintenance and repair of dental operating room and prosthetic laboratory equipment, including applied physics, repair of dental operating room equipment, repair of dental prosthetic laboratory equipment, instructor training, and petty officer leadership training.

Credit Recommendation: In the vocational certificate category, 2 semester hours in machine shop (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in machine shop on the basis of institutional evaluation (6/74).

NV-1715-0681

TARTAR WEAPONS SYSTEM MISSILE FIRE
CONTROL SYSTEM (MFCS) MK 74
MOD 0

Course Number: A-121-0023; A-121-0024.

Location: Guided Missiles School, Dam Neck, VA; Training Center, Mare Island, CA.

Length: 11 weeks (323 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train senior petty officers on the Tartar missile weapons system.

Instruction: Lectures and practical exercises on Tartar weapons system missile fire control system Mk 74 Mod 0, including supplemental reports, introduction to OP3472, DDG weapons system, Tartar weapons system, system functional diagrams, system testing and casualty analysis, standard missile (MR), DDG battery alignment, ECM/ECCM, shipboard practices and exercises, and UHF TM system.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1715-0682

F/RF-4B POWER GENERATING SYSTEM
MAINTENANCE

Course Number: C-602-182.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train strikers to maintain the power generating system of the F/RF-4B aircraft at the intermediate and organizational level.

Instruction: Lectures and practical exercises in F/RF-4B power generating system maintenance, including familiarization and circuit analysis of power generating system, circuit analysis, troubleshooting procedures and test equipment, electrical power generating system, alternating current generators, specific electrical power test set, testing of the frequency and load control box and the generator control panel, and saturable current potential transformer.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0683

UH-2C, HH-2C, HH-2D AUTOMATIC
STABILIZATION EQUIPMENT
ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3389.

Location: Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 4 weeks (112 hours).

Exhibit Dates: 2/72–Present.

Objectives: To train maintenance personel to maintain and repair the automatic stabilization equipment installed on UH-2C, HH-2C, and HH-2D helicopters.

Instruction: Lectures and practical exercises in the organizational maintenance of UH-2C, HH-2C, and HH-2D automatic stabilization equipment, including introduction and theory of the automatic stabilization equipment system; operation and maintenance of the ASE channels; roll, pitch, and yaw channels; collective channel; and review and testing of the ASE system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in helicopter control systems on the basis of institutional evaluation (6/74).

NV-1715-0684

SHIPBOARD DECOY SYSTEM
(CHAFFROC) LAUNCHER
OPERATION AND MAINTENANCE MK
28 MOD 1-5

Course Number: J-113-0103; J-041-1032; J-113-1032.

Location: Fleet Combat Direction Systems Training Center, Atlantic, Dam Neck, VA.

Length: 2 weeks (70 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to operate and maintain a rocket launching system, including loading, unloading, preventive maintenance, casualty analysis, and corrective maintenance.

Instruction: Lectures and practical exercises in the operation and maintenance of a rocket launching system. Topics include basic electricity, basic hydraulics, hydraulic pumps and valves, and information pertaining to specific equipment. Coverage of the topics is very limited.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electromechanical laboratory (6/74).

NV-1715-0685

ADVANCED SONAR MAINTENANCE, 561
(Class B Sonarman)

Course Number: 561.

Location: Fleet Sonar School, San Diego, CA.

Length: 18 weeks (596 hours).

Exhibit Dates: 7/55–12/68.

Objectives: To train enlisted personnel to repair sonar and associated equipment.

Instruction: Lectures and practical exercises in advanced sonar maintenance, including fundamental mathematics, electricity and electronics theory, vacuum tube fundamentals, basic electronic circuits, basic servo systems, and circuit analysis and troubleshooting sonar equipment.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electricity or electronics, 4 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electricity or electronics (12/68).

NV-1715-0686

RA-5C AN/ALQ-61 COUNTERMEASURES
SET SPECIAL SUPPORT EQUIPMENT

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 8/67–12/68.

Objectives: To train enlisted personnel to operate, maintain, and service specific countermeasures equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/ALQ-61 countermeasures set, including line test, shop test, and calibration procedures for the countermeasures test sets.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/74).

NV-1715-0687

RA-5C AN/ALQ-55 DECM SYSTEM

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 8 weeks (320 hours).

Exhibit Dates: 2/67–12/68.

Objectives: To train fleet maintenance personnel to service and maintain specific electronic equipment.

Instruction: Lectures and practical exercises in the service and maintenance procedures for specific electronic equipment. Topics include system functional analysis, preamplifier and multicoupler, RF circuitry, synchronizer, receivers, high-resolution module, jam frequency generators, and an introduction to logic. Foundation material in digital fundamentals and circuitry is included in the course.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics, 2 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics, 1 in electrical laboratory (12/68).

NV-1715-0688

F-8 COMMUNICATION NAVIGATION AND
IDENTIFICATION (CNI) SYSTEMS
ORGANIZATIONAL MAINTENANCE

Course Number: C-102-3859; C-102-306.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 2 weeks (60–80 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train maintenance personnel to handle operational data flow and to maintain the F-8 aircraft's communications, navigation, and identification systems.

Instruction: Lectures and practical exercises in the organizational maintenance of the F-8 aircraft's communications, navigation, and identification systems, including integration electronics systems, automatic radio direction finders, radar altimeter, block-diagram analysis of the TACAN system, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical maintenance laboratory (6/74).

NV-1715-0689

Submarine Sonar Subjective Analysis (SSSA)

Course Number: A-130-0020; F-130-020.
Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.
Length: 4-5 weeks (120-150 hours).
Exhibit Dates: 12/69-Present.
Objectives: To provide sonar technicians with advanced training in the analysis and classification of underwater sonar information.
Instruction: Lectures and practical exercises in the analysis and classification of underwater sonar information, including security, acoustic intercept, use of filters, tonefinding techniques, diesel submarines, patrol craft, warships, analysis of target and nontarget noise, and principles of magnetic tape recording.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1715-0690

Communications Quality Monitoring System Operator

Course Number: A-201-0020.
Location: Service Schools Command, San Diego, CA.
Length: 2 weeks (60 hours).
Exhibit Dates: 10/71-Present.
Objectives: To train enlisted personnel to monitor the performance of operational communication systems.
Instruction: Lectures and practical exercises in the duties and skills necessary to perform as communications quality monitoring systems operators, including fundamentals of communications, teletype terminology, audio techniques, quality control methods, and systems application.
Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electrical laboratory (6/74).

NV-1715-0691

A-6A Weapons System Specialist Organizational Maintenance

Course Number: C-102-3954; C-000-3764.
Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, Oceana, VA.
Length: 10-12 weeks (400-480 hours).
Exhibit Dates: 9/71-Present.
Objectives: To train enlisted personnel to maintain the A-6A aircraft.
Instruction: Lectures and practical exercises in the maintenance of the A-6A weapons system, including aircraft systems familiarization, ballistics computer, radar systems, DIANE system operation and tie-in, diagnostics, and troubleshooting procedures. Course provides good introduction to digital systems and basic digital computer theory.
Credit Recommendation: In the vocational certificate category, 3 semester hours in computer fundamentals and systems, 1 in computer systems laboratory (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer fundamentals and systems, 1 in computer systems laboratory (6/74).

NV-1715-0692

Advanced Sonar, 567

Course Number: 567.
Location: Fleet Sonar School, Key West, FL.
Length: 14 weeks (558 hours).
Exhibit Dates: 10/57-12/68.
Objectives: To train enlisted personnel to operate, maintain, and repair specific sonar and ancillary equipment.
Instruction: Lectures and practical exercises in sonar maintenance at the advanced level. Course includes brief and basic coverage of electricity, special electronic circuits, and meter theory.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (6/74).

NV-1715-0693

Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT)

Course Number: A-104-0135.
Location: Guided Missiles School, Dam Neck, VA.
Length: 8 weeks (309 hours).
Exhibit Dates: 10/72-Present.
Objectives: To train enlisted personnel to maintain and troubleshoot a specific radar set.
Instruction: Lectures and practical exercises in the maintenance and operation of the AN/SPG-55B radar set and specialized electronic test equipment, including differential voltmeters, pulse generators, VSWR indicators, spectrum analyzers, digital voltmeters and counters, square-wave generators, and continous-wave radio frequency analyzers.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/74); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/74).

NV-1715-0694

Advanced Sonar, 557

Course Number: 557.
Location: Fleet Sonar School, Key West, FL.
Length: 11 weeks (440 hours).
Exhibit Dates: 7/57-12/68.
Objectives: To train enlisted personnel to operate and learn advanced sonar techniques.
Instruction: Lectures and practical exercises in the operation of sonar at an advanced level. Topics include basic mathematics, basic fire control, elementary wiring diagrams, and testing, calibration, and maintenance of fire control systems.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electricity, 1 in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (12/68).

NV-1715-0695

P-3 AN/APS-80 Search Radar System Maintenance, 49

Course Number: Not available.
Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.
Length: 3 weeks (136 hours).
Exhibit Dates: 1/70-Present.
Objectives: To train experienced technicians to maintain the AN/APS-80 search radar at the organizational and intermediate levels.
Instruction: Lectures and practical exercises in the maintenance and alignment procedures for the AN/APS-80 search radar system, including introduction to the P-3 search radar system; dual radar installation in the P-3; antenna azimuth and tilt systems; dual installation switching arrangement; P-3 radar system alignment; modulator power supply, electronic synchronizer; AC power distribution; and TR tube and associated circuitry.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics, 1 in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics, and additional credit in electronics on the basis of institutional evaluation (6/74).

NV-1715-0696

Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P3C
(Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P3C)

Course Number: E-210-0050; E-210-050.
Location: Fleet Aviation Specialized Operational Training Group, Moffett Field, CA.
Length: 3-4 weeks (105-126 hours).
Exhibit Dates: 10/72-Present.
Objectives: To train VP antisubmarine warfare operators in the operation of nonacoustic equipment.
Instruction: Lectures and practical exercises in nonacoustic equipment, including operation; intercept procedures; terminology; and applications and skills of scope interpretation, including sensor station duties and techniques, equipment operation, search and localization sensors, radar principles, radar navigation principles, magnetic environment principles, electronic warfare principles, and electronic intelligence recognition.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1715-0697

SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance

Course Number: C-102-3376.
Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/73-Present.
Objectives: To train fleet maintenance personnel in the maintenance of SH-2D avionics equipment.
Instruction: Lectures and practical exercises in the maintenance of SH-2D avionics equipment, including LAMPS organizational maintenance, radar/ESM, antisubmarine warfare, communications/navigation equipment, systems operation and analysis, troubleshooting and repair, use of test equipment, publications, and safety procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics maintenance (6/74).

NV-1715-0698

Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train aviation support equipment technicians to perform intermediate maintenance on the systems of the NC-10B electric power plant.

Instruction: Lectures and practical exercises in the maintenance of NC-10B electric power plants, including NC-10B mechanical systems, maintenance, electrical systems, component removal and replacement, and troubleshooting and adjustments.

Credit Recommendation: In the vocational certificate category, 1 semester hour in support equipment maintenance (6/74).

NV-1715-0699

A-6A Automatic Flight Control System Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.

Length: 7 weeks (280 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train maintenance personnel to maintain, test, and troubleshoot the AN/ASW-16 automatic flight control system and the flight control test console at the intermediate maintenance level.

Instruction: Lectures and practical exercises in the AN/ASW-16 automatic flight control system and the flight control test console, including introduction to semiautomatic check-out equipment, operation and maintenance of the air data computer, operational theory of the air navigation computer and related components, and maintenance of the automatic flight control system.

Credit Recommendation: In the vocational certificate category, 10 semester hours in electrical and electronic systems (6/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in electrical and electronic systems (6/74).

NV-1715-0700

Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance

Course Number: C-602-3226.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 6/71–Present.

Objectives: To train aviation support equipment technicians to perform maintenance on the NC-2A mobile electric power plant.

Instruction: Lectures and practical exercises in the maintenance of the NC-2A mobile electric power plant, including introduction to the NC-2A; NC-2A familiarization; electrical systems; NC-2A electrical description and theory of operation; line troubleshooting; and bench test, repair, and adjustment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical support equipment maintenance (6/74).

NV-1715-0701

F-4J RT-793/ASQ UHF Transceiver Intermediate Maintenance

Course Number: C-102-218.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC; Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 9/70–Present.

Objectives: To train personnel in the intermediate maintenance of the RT-793/ASQ UHF transceiver.

Instruction: Lectures and practical exercises in the intermediate maintenance of the RT-793/ASQ UHF transceiver, including theory of operation, and laboratory and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in avionics maintenance technology (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in avionics maintenance technology (6/74).

NV-1715-0702

Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore)

Course Number: C-122-3110.

Location: Air Maintenance Training Detachment, Jacksonville, FL; Air Maintenance Training Detachment, North Island, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train enlisted personnel to operate, maintain, and calibrate air launched guided missile test equipment.

Instruction: Lectures and practical exercises in the theory, operation, maintenance, and calibration of air launched guided missile equipment, including the Sparrow, Sidewinder, Shrike, and Walleye systems.

Credit Recommendation: In the vocational certificate category, 8 semester hours in electronics, 6 in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electronics, 3 in electronics laboratory (6/74); in the upper-division baccalaureate category, 2 semester hours in electronics laboratory (6/74).

NV-1715-0703

Tartar Fire Control and Missile Officer

Course Number: A-2F-0010.

Location: Guided Missiles School, Dam Neck, VA.

Length: 13 weeks (331 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train commissioned officers to maintain, operate, and handle logistics for Tartar shipboard missile systems.

Instruction: Lectures and practical exercises in the maintenance and operation of Tartar missile systems. Course includes the capabilities and characteristics of the Tartar missile systems, with strong emphasis on weapons system employment, firing considerations, and operation of various radar systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical systems (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electrical systems (6/74).

NV-1715-0704

DIFAR Training for Acoustic Operators P3A/B(D) and P3C (Jezebel Gram Analysis for AW's P3A/B (DIFAR Retrofit))

Course Number: E-210-42.

Location: Fleet Airborne Electronics Training Unit, Pacific, Moffett Field, CA.

Length: 6 weeks (203–224 hours).

Exhibit Dates: 10/71–Present.

Objectives: To train enlisted personnel in acoustic detection techniques for qualification as a sensor station operator aboard P3A/B (DIFAR Retrofit) aircraft.

Instruction: Lectures and practical exercises in acoustic detection techniques for qualification as a sensor station operator aboard P3A/B (DIFAR Retrofit) aircraft. Course includes Jezebel fundamental analysis procedures, aural listening techniques, acoustic listening devices, and specialized test equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-1715-0705

Polaris Electronics, Class A

Course Number: *Version 1:* A-121-0142; A-121-142. *All Versions:* A-000-037.

Location: Guided Missiles School, Dam Neck, VA.

Length: *Version 1:* 26 weeks (910 hours). *Version 2:* 22 weeks (703 hours).

Exhibit Dates: *Version 1:* 4/67–Present. *Version 2:* 1/66–3/67.

Objectives: To train technicians to be Polaris missile technicians.

Instruction: Lectures and practical exercises in Polaris missile technology, including basic electrical theory, transistor circuit analysis, modern digital computer circuits and logic operations, inertial guidance theory, radar, sonar, and communications fire control.

Credit Recommendation: *Version 1:* In the vocational certificate category, 25 semester hours in electronics or computer technology (6/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in electronics or computer technology (6/74); in the upper-division baccalaureate category, 3 semester hours as an elective in digital computer fundamentals, or electrical or electronics laboratory (6/74). *Version 2:* In the vocational certificate category, 20 semester hours in electronics or computer technology (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 2 semester hours in electrical or electronics laboratory (6/74).

NV-1715-0706

F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance

Course Number: C-602-3818.

Location: Air Maintenance Training Detachment, Miramar, CA; Air Maintenance Training Detachment, El Tora, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 5-6 weeks (200-240 hours).

Exhibit Dates: 1/71-Present.

Objectives: To train maintenance personnel to maintain the AN/AWG-10 missile control display and built-in test.

Instruction: Lectures and practical exercises in the maintenance of the AN/AWG-10 missile control display and built-in test. Course includes inspection techniques, troubleshooting procedures, the missile auxiliary generator, and topics on basic computer control of servo systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic computers and/or servo laboratory (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic computers and/or servo laboratory (6/74).

NV-1715-0707

APA-56 INDICATOR ASSEMBLY

Course Number: D-100-012.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/66-12/69.

Objectives: To train enlisted personnel to operate, maintain, adjust, and troubleshoot the APA-56 indicator and associated test equipment.

Instruction: Lectures and practical exercises in the operation, maintenance, adjustment, and troubleshooting of the APA-56 indicator and associated test equipment, including power supplies, circuit analysis, signal distributor, console indicator, relay priority system, camera PPI and grid map converter.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0708

CENTRAL GYRO REFERENCE SYSTEM
(AN/AJA-2), CLASS C

Course Number: D-602-017.

Location: Oceanographic Air Survey Unit, Patuxent River, MD.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/66-12/68.

Objectives: To train aviation electricians to operate, maintain, and troubleshoot the AN/AJA-2 central gyro reference system.

Instruction: Lectures and practical exercises in the operation, maintenance, and troubleshooting of the AN/AJA-2 central gyro reference system, including review of basic electronics and electricity pertaining to the central gyro reference system, definition of terms and descriptions of equipment, three-gyro stable platform, timing and functional operations, detailed circuit analysis and preflight procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0709

E-2A INERTIAL NAVIGATION SYSTEM
AN/ASN-36 MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 3/68-Present.

Objectives: To train enlisted personnel to maintain the ASN-36 inertial navigation system.

Instruction: Lectures and practical exercises in the maintenance of the ASN-36 inertial navigation system. Topics include gyroscopes, accelerometers, servos, platform stabilization, control servos, control and navigation computer, analog-to-digital encoders, and analog and digital computations (functional approach only).

Credit Recommendation: In the vocational certificate category, 5 semester hours in electrical and/or mechanical technology (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical and/or mechanical technology (7/74); in the upper-division baccalaureate category, 1 semester hour in electrical and/or mechanical technology on the basis of institutional evaluation (7/74).

NV-1715-0710

AN/ARC-51, 51A AND 51AX
COMMUNICATION SYSTEMS
INTERMEDIATE MAINTENANCE
(P-3 AN/ARC-51A Communication Systems Maintenance, No. 22)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Kingsville, TX; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Camp Pendleton, CA; Air Maintenance Training Detachment, Key West, FL; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80-96 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train enlisted personnel to maintain, operate, and troubleshoot the AN/ARC-51, 51A and 51AX communication systems.

Instruction: Lectures and practical exercises in the maintenance, operation, and troubleshooting of the AN/ARC-51, 51A and 51AX communication systems, including block-diagram analysis of transceivers.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory on the basis of institutional evaluation (7/74).

NV-1715-0711

ADVANCED SONAR COURSE 566

Course Number: 566.

Location: Fleet Sonar School, Key West, FL.

Length: 5-6 weeks (225 hours).

Exhibit Dates: 10/57-12/68.

Objectives: To train enlisted personnel to maintain, calibrate, and operate sonar equipment.

Instruction: Lectures and practical exercises in the maintenance, calibration, and operation of sonar equipment at the advanced level. Course includes a review of mathematics, electricity, receivers, transmitters, and circuits.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (7/74).

NV-1715-0712

MISSILE TECHNICIAN, CLASS B
(Class B Guided Missileman)

Course Number: Not available.

Location: Guided Missile School, Dam Neck, VA.

Length: 38-41 weeks (1,140-1,435 hours).

Exhibit Dates: 3/61-Present.

Objectives: To provide the student with the technical background in mathematics, physics, and electronics necessary to analyze the operational capabilities and limitations of a complex missile weapon system.

Instruction: Lectures and practical exercises in technical mathematics, physics, and electronics. The mathematics instruction covers algebra, trigonometry, and basic calculus. Physics topics include mechanics, with emphasis on missile trajectories and the properties of matter, heat, light, sound, electricity, and magnetism. In the electronics section, DC and AC circuits, vacuum tubes, semiconductors, amplifiers, amplitude, frequency, phase, and pulse modulation are studied. In addition, computer fundamentals are presented. A significant part of the program is devoted to inertial components and weapon systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in mathematics, 4 in physics, 4 in electronics, 3 in electricity, and, on the basis of institutional evaluation, additional credit in electronics laboratory (8/74); in the lower-division baccalaureate/associate degree category, 5 semester hours in mathematics, 4 in physics, 3 in electricity or electronics, and, on the basis of institutional evaluation, additional credit in electrical laboratory (12/68).

NV-1715-0713

CARRIER AIR TRAFFIC CONTROL CENTER
EQUIPMENT MAINTENANCE,
AN/SPN-35A AND AN/SPN-35,
CLASS C
(Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35, Class C)

Course Number: C-103-2012.

Location: Air Technical Training Center, Glynco, GA.

Length: 8-9 weeks (312-360 hours).

Exhibit Dates: 10/65-Present.

Objectives: To train graduates of electronics technicians school, class A, in the operation and maintenance of the AN/SPN-35A and AN/SPN-35 radar sets and associated auxiliary electronic equipment.

Instruction: Lectures and practical exercises in operation and maintenance of specific radar sets and associated electronic equipment, including radar circuit theory, radar transmitters, receivers, antenna stabilization, indicators, system alignment, AN/SPN-35 modifications, and differences between AN/SPN-35A and AN/SPN-35 radar sets.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics laboratory (7/74); in the upper-division baccalaureate category, 3 semester hours in electronics laboratory (7/74).

NV-1715-0714

BASIC PROPULSION ENGINEERING, CLASS A

Course Number: A-650-010.

Location: Naval Training Center, Great Lakes, IL.

Length: *Version 1:* 5 weeks (152 hours). *Version 2:* 9 weeks (275 hours).

Exhibit Dates: *Version 1:* 6/70–12/73. *Version 2:* 1/67–5/70.

Objectives: To train personnel in basic propulsion engineering, class A.

Instruction: *All Versions:* Lectures and practical exercises in basic propulsion engineering, class A, including introduction to marine power plants, introduction to boilers, combustion principles, internal-combustion engines, measuring and control devices, electrical theory, blueprints and telephones, pumps, power transfer equipment, valves, piping, and fittings. *Version 1:* Topics include power transfer equipment, handtools, instruments, and materials. *Version 2:* Topics include mathematics review, mechanical theory, metallurgy, fluid theory, heat theory, and logs.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (7/74). *Version 2:* In the vocational certificate category, 2 semester hours in electronics laboratory, 2 in basic engineering theory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic engineering theory, 2 in electronics laboratory (7/74).

NV-1715-0715

CARRIER AIR TRAFFIC CONTROL CENTER EQUIPMENT MAINTENANCE, AN/SPN-6 AND AN/SPN-12 (XN-4), CLASS C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 3 weeks (120 hours).

Exhibit Dates: 2/65–12/68.

Objectives: To train selected electronics technicians to operate AN/SPN-6 and AN/SPN-12 (XN-4) air traffic control electronic equipment.

Instruction: Lectures and practical exercises in operation of air traffic control electronic equipment. Course includes transmitters and receivers, antenna stabilization, and air speed radar operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electrical laboratory (7/74); in the upper-division baccalaureate category, 2 semester hours in electrical laboratory (7/74).

NV-1715-0716

BASIC UNDERSEA WEAPONS CIRCUITS

Course Number: A-123-0130; A-123-119.

Location: Naval Training Center, Orlando, FL; Advanced Undersea Weapons School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 8 weeks (283 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train enlisted personnel in basic undersea weapons circuits.

Instruction: Lectures and practical exercises in basic undersea weapons circuits, including introduction, direct current and Ohm's law, alternating current, synchros, introduction to electronics, basic amplifier circuits theory, principles of receiver operation, and transmitters and transducers.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical and electronic laboratory for non-electrical-engineering students (6/74).

NV-1715-0717

ADVANCED UNDERSEA WEAPONS CIRCUITS

Course Number: A-123-0131.

Location: Advanced Undersea Weapons School, Orlando, FL; Fleet Anti-Submarine Warfare School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 12 weeks (420 hours).

Exhibit Dates: 6/70–Present.

Objectives: To train enlisted personnel in advanced undersea weapons circuits.

Instruction: Lectures and practical exercises in advanced undersea weapons circuits, including basic mathematics, test equipment, undersea weapons power systems, undersea weapon circuits, undersea weapons systems sections, synchro-servo system principles, gyroscopic concepts, transistors and printed circuits, and computer fundamentals.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronic laboratory for engineering students, or 2 as a technical elective for non-engineering students (6/74).

NV-1715-0718

TORPEDOMAN'S MATE, CLASS A
(Torpedoman's Mate, Class A, Intermediate Maintenance Prerequisite)

Course Number: A-123-0129.

Location: Naval Training Center, Orlando, FL; Advanced Undersea Weapons School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 5 weeks (155 hours).

Exhibit Dates: 6/70–Present.

Objectives: To train torpedoman's mates in intermediate electronics maintenance.

Instruction: Lectures and practical exercises in electronics maintenance, including basic principles of synchros, basic amplifier circuits, principles of receiver operation, transmitters and transducers, theory of vacuum tube operation, methods of biasing vacuum tubes, troubleshooting amplifiers, detector circuits, electronic test equipment, troubleshooting power supplies, oscillator circuits, basic transmitter circuitry, and principles of transducer operation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (6/74); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory for non-electrical-engineering students (6/74).

NV-1715-0719

TORPEDOMAN'S MATE, CLASS A
(Torpedoman's Mate, Class A, Surface)

Course Number: A-123-0128.

Location: Naval Training Center, Orlando, FL; Advanced Undersea Weapons School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 5 weeks (142–175 hours).

Exhibit Dates: 6/70–Present.

Objectives: To train torpedoman's mates in surface weapons.

Instruction: Lectures and practical exercises in surface weapons, including torpedo explosives, specific torpedos, steam and mechanical and wire-guided torpedos, standoff weapons, specific torpedo tube, firing craft procedures for specific torpedo, and depth charges and associated equipment.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0720

TORPEDOMAN'S MATE, CLASS A
(Torpedoman's Mate, Class A, Submarine)

Course Number: A-123-0127.

Location: Naval Training Center, Orlando, FL; Advanced Undersea Weapons School, Key West, FL; Fleet Anti-Submarine Warfare School, San Diego, CA.

Length: 6 weeks (228–257 hours).

Exhibit Dates: 6/70–Present.

Objectives: To train enlisted personnel as torpedoman's mates.

Instruction: Lectures and practical exercises in submarine weapons, including introduction to explosives, specific torpedos, introduction to SUBROC missile, specific submerged torpedo tubes, and torpedo tube loading procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-1715-0721

ELECTRONICS OFFICERS ADMINISTRATIVE

Course Number: Not available.

Location: Electronics Officers School, Great Lakes, IL.

Length: 14 weeks (420 hours).

Exhibit Dates: 9/57–12/58.

Objectives: To train junior officers to maintain and repair sonar, radar, and loran equipment; to administer the operation of electronics installations; and to conduct training programs for ET strikers.

Instruction: Lectures and practical exercises in the maintenance and repair of loran, sonar, radar, and other miscellaneous electronic equipment. Course includes fundamentals of electricity and vacuum-tube electronics as well as a description of radar, loran and sonar systems.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electricity or electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electrical laboratory (6/74).

NV-1715-0722

ELECTRONICS TECHNICIAN, CLASS A—A-1 (ELECTRONIC FUNDAMENTALS)

Course Number: A-100-0012.

Location: Electronics Technician Class A School, Great Lakes, IL; Electronics Technician Class A School, Treasure Island, CA.

Length: *Version 1:* 10 weeks (364 hours). *Version 2:* 13–14 weeks (390–420 hours).

Exhibit Dates: *Version 1:* 7/74–9/77. *Version 2:* 5/66–6/74.

Objectives: To train enlisted personnel who are graduates of a basic electricity and electronics course to perform as electronics technicians.

Instruction: *All Versions:* Lectures and practical exercises in the operation, maintenance, and repair of electronic equipment, including electronic circuits, basic meters, basic oscilloscopes, power supplies, electron tube and half/full wave rectifier circuits, electrical wiring techniques, filter circuits, mounting and soldering techniques, voltage regulators, transmitting circuits, modulator unit, RC coupled amplifiers, use of the tube tester, multigrid vacuum tube amplifiers, and audio power amplifiers. *Version 1:* Also covers electron tubes and solid state receivers and devices.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electricity and electronics and 2 in electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (9/77). *Version 2:* In the vocational certificate category, 10 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory, or 2 in introduction to electronics for non-engineering students (6/74).

NV-1715-0723

Electronics Technician, Class A—A-2 (Electronic Circuit Applications)

Course Number: *All Versions:* A-100-0014. *Version 2:* A-100-014; A-100-015.

Location: Electronics Technician Class A School, Great Lakes, IL; Electronics Technician Class A School, Treasure Island, CA.

Length: *Version 1:* 7 weeks (255 hours). *Version 2:* 9–12 weeks (270–368 hours).

Exhibit Dates: *Version 1:* 7/74–9/77. *Version 2:* 5/66–6/74.

Objectives: To train enlisted personnel who are graduates of a basic electricity and electronics course to perform as electronics technicians.

Instruction: *All Versions:* Lectures and practical exercises in the operation, maintenance, and repair of radar-related electronic equipment, including pulse circuits, timing circuits, multivibrators, clippers and counters, cathode followers, transistor printed-circuit training device, oscilloscope circuits, microwave circuits, and radar timers and modulators. *Version 1:* Also covers control systems, magnetic amplifiers, Boolean algebra and simplified digital circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in radar systems (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in radar systems (9/77). *Version 2:* In the vocational certificate category, 10 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronic instrumentation laboratory for engineers or physical science majors, or 2 in applied electronics for non-engineering students (6/74).

NV-1715-0724

Electronics Technician, Class A—A-3 (Communications)

Course Number: *All Versions:* A-102-0010. *Version 2:* A-102-010; A-102-011.

Location: Electronics Technician Class A School, Great Lakes, IL; Electronics Technician Class A School. Treasure Island, CA.

Length: *Version 1:* 5 weeks (172 hours). *Version 2:* 5–8 weeks (150–240 hours).

Exhibit Dates: *Version 1:* 7/74–9/77. *Version 2:* 5/66–6/74.

Objectives: To train enlisted personnel to perform as electronics technicians.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of electronic equipment, including introduction to communications; HF communication receivers; UHF communications equipment; and specific radio receivers, radio transmitters, special circuits, power supplies, and audio circuits.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in communications equipment (9/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in communications laboratory (9/77). *Version 2:* In the vocational certificate category, 4 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in radio laboratory (6/74).

NV-1715-0725

Electronics Technician, Class A—A-3 (Radar)

Course Number: *All Versions:* A-104-0010. *Version 2:* A-104-010A-104-0011; A-104-011.

Location: Electronics Technician, Class A School, Great Lakes, IL; Electronics Technician, Class A School, Treasure Island, CA.

Length: *Version 1:* 3 weeks (110 hours). *Version 2:* 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 7/74–9/77. *Version 2:* 5/66–6/74.

Objectives: To train enlisted personnel to perform as electronics technicians.

Instruction: Lectures and practical exercises in the operation, maintenance, and repair of radar-related electronic equipment, including types of radar and moving-target indicators; review of special circuits; and specific radar set, antenna, synchro, R-F system, receiver, transmitter, and modulator.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in radar electronics (9/77). *Version 2:* In the vocational certificate category, 2 semester hours in electronics laboratory (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in engineering electronics (12/68); in the upper-division baccalaureate category, 1 semester hour in electronic instrumentation laboratory (6/74).

NV-1715-0727

Electronics Technician, Class A (Communications, Radar and Sonar Specialties)

Course Number: None.

Location: Electronics Technician, Class A School, Great Lakes, IL; Electronics Technician, Class A School, Treasure Island, CA.

Length: 24–26 weeks (720–780 hours).

Exhibit Dates: 1/54–5/62.

Objectives: To train electronic technicians to operate and repair complex communications systems, including radar and sonar systems.

Instruction: Lectures and practical exercises in operation and maintenance of complex communications systems. Course includes basic electrical and electronic circuit theory, block-diagram analysis, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 18 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 9 semester hours in electronics (6/74); in the upper-division baccalaureate category, 3 semester hours in basic electronics, 1 in electrical laboratory as technical electives for non-electrical-engineering majors, or 2 semester hours in electronic instrumentation or radio laboratory for electrical engineering students (6/74).

NV-1715-0728

Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance

Course Number: K-113-158.

Location: Fleet Training Center, San Diego, CA.

Length: 6 weeks (180 hours).

Exhibit Dates: 6/71–Present.

Objectives: To train technicians and designated strikers to operate and maintain radar gun control systems, including GFCS Mk 37, Mk 68, and Mk 56.

Instruction: Lectures and practical exercises in the operation and maintenance of radar gun control systems. Course includes review of basic transistor electronics, primary radar circuitry including IF detection and amplification; automatic target range acquisition and tracking; and logic circuitry.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (6/74); in the upper-division baccalaureate category, 1 semester hour in electronic instrumentation laboratory (6/74).

NV-1715-0729

Interior Communications Electricians, Class A (A-1)

(IC Electricians, Class A)

Course Number: A-632-0012.

Location: Interior Communication Electricians, Class A School, San Diego, CA; Interior Communication Electricians, Class A School, Great Lakes, IL.

Length: 18 weeks (510 hours).

Exhibit Dates: 11/65–12/68.

Objectives: To train technicians to operate, maintain and repair shipboard interior communications equipment.

Instruction: Lectures and practical exercises in operation, maintenance, and repair of shipboard interior communications systems and equipment. Course includes DC/AC electrical theory, audio amplifiers, magnetic amplifiers and gyroscopic equipment, block diagrams, signal tracing, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 12 semester hours in electricity or electronics (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics (12/68); in the upper-division baccalaureate category, 3 semester hours as a technical elective in electronics instrumentation for non-electrical-engineering majors, or 2 in electrical or electronics laboratory for non-electrical-engineering majors, and 1 in electrical laboratory (6/74).

NV-1715-0730

Electronics Technician, Class A (Communications)

Course Number: Not available.

Location: Electronics Technician, Class A Schools, Great Lakes, IL; Electronics Technician, Class A Schools, Treasure Island, CA.

Length: 38 weeks (1140 hours).

Exhibit Dates: 6/62–4/66.

Objectives: To train personnel to maintain a variety of Naval electronic equipment.

Instruction: Lectures and practical exercises in the maintenance of Naval electronic equipment, including electronic fundamentals, electronic circuit fundamentals, transmitter applications, receiver applications, pulse techniques, control systems, microwave techniques, electronic equipments, communication receivers and transmitters, teletype terminal equipment, and single-sideband equipment.

Credit Recommendation: In the vocational certificate category, 28 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in physics (electricity), 12 in engineering electronics (12/68); in the upper-division baccalaureate category, 6 semester hours in electricity and electronics for non-engineering majors, 3 as a technical elective in electrical or electronic laboratory for non-electrical-engineering students, 1 in instrumentation laboratory for electrical engineering students (6/74).

NV-1715-0731

Electronics Technician, Class A (Radar)

Course Number: Not available.

Location: Electronics Technician, Class A School, Great Lakes, IL; Electronics Technician, Class A School, Treasure Island, CA.

Length: 38 weeks (1140 hours).

Exhibit Dates: 6/62–4/66.

Objectives: To train personnel to maintain electronic equipment.

Instruction: Lectures and practical exercises in the maintenance of electronic equipment, including radar equipment fundamentals, multivibrators, synchronization, oscillators, magnetrons, klystrons, clampers, limiters, and clippers; introduction to radar equipment; primary power distribution; modulator; transmitter; RF system and duplexer; receiver and adapter indicator; radar set control; antenna and synchro systems; equipment review; and block diagram of a specific radar set.

Credit Recommendation: In the vocational certificate category, 28 semester hours in electricity and electronics (6/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in physics (electricity), 12 in engineering electronics (12/68); in the upper-division baccalaureate category, 6 semester hours in electricity and electronics for non-engineering students, 3 as a technical elective for non-electrical-engineering students, 1 in instrumentation laboratory for electrical engineers (6/74).

NV-1715-0732

RA-5C Flight Control System Electronics (Intermediate Maintenance)

Course Number: Not available.

Location: Air Maintenance Training Detachment, Sanford, FL.

Length: 6 weeks (240 hours).

Exhibit Dates: 9/67–Present.

Objectives: To train maintenance personnel to maintain and service the RA-5C flight control system.

Instruction: Lectures and practical exercises in the maintenance of the RA-5C flight control system. Course includes hydraulic and airflow systems, directional control systems, flight control systems, and use of training units, meters, and oscilloscopes.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory (7/74).

NV-1715-0733

A-4 Walleye Weapon Delivery System

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/67–Present.

Objectives: To train enlisted personnel to maintain and repair the Walleye weapons system.

Instruction: Lectures and practical exercises in the maintenance and repair of the Walleye weapons system. Course includes logic systems, power generators, instrumentation usage, system familiarization, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0734

TT-299B/UG Teletypewriter Set Maintenance (Enlisted)

Course Number: F-101-018.

Location: Submarine School, Groton, CT.

Length: 4 weeks (120 hours).

Exhibit Dates: 8/67–12/68.

Objectives: To train submarine radiomen and submarine tender personnel to repair the TT-299B/UG teletypewriter set.

Instruction: Lectures and practical exercises in planned and corrective maintenance of a specific teletypewriter set, including introduction to specific teletypewriter set; mechanical function of the keyboard; nomenclature; analysis of the printer main shaft; electromechanical function of the magnetic selector; functional purpose of the start clutch and range selector; mechanical functions of the printing mechanism and the print-and-advance prevent mechanism; mechanical operations of specific functions; and preparation for adjustments and tool kit inventory.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0735

Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1

Course Number: A-623-0044.

Location: Service School Command, Great Lakes, IL.

Length: 6 weeks (173 hours).

Exhibit Dates: 12/74–Present.

Objectives: To train personnel in the maintenance, repair and checkout of automatic electric telephone systems.

Instruction: Areas of instruction include the Strowger Switch telephone system, relaying fundamentals, analysis of system design, priorities and faults.

Credit Recommendation: In the vocational certificate category, 3 semester hours in telephone switch gear (9/77).

NV-1715-0736

KC-130-F S-5 Automatic Pilot and Related Instruments Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/68–Present.

Objectives: To train enlisted personnel to repair and maintain the automatic pilot installed in the KC-130F aircraft.

Instruction: Lectures and practical exercises in the repair and maintenance of the automatic pilot installed in KC-130F aircraft. Course includes MA-1 compass operation (electronics), and the operation of the SA-5 automatic pilot.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0737

F-8 Automatic Flight Control System Intermediate Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Miramar, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/70–Present.

Objectives: To train maintenance personnel to troubleshoot and repair F-8 automatic flight control systems.

Instruction: Lectures and practical exercises in the maintenance and repair of F-8 automatic flight control systems. Course includes a review of vacuum tube theory, transistor theory, aerodynamics, and test equipment operation.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (7/74).

NV-1715-0738

H-53 Automatic Flight Controls Systems Intermediate Maintenance

Course Number: C-602-3442.

Location: Air Maintenance Training Detachment, Santa Ana, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/70–Present.

Objectives: To train enlisted personnel who have had previous training in transistor fundamentals to operate and maintain at the intermediate level the automatic flight control system installed in H-53 aircraft.

Instruction: Lectures and practical exercises in the operation and maintenance of the automatic flight control system installed in the H-53 aircraft, including attitude-indicating system components, stick trim system, amplifier circuit analysis, synchronizer circuits, control box wiring, detailed analysis of circuits, test procedures and test equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (7/74).

NV-1715-0739

P-3 COMMUNICATION/NAVIGATION ORGANIZATIONAL MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/70–Present.

Objectives: To train fleet maintenance personnel to operate and maintain P-3 communication/navigation systems.

Instruction: Lectures and practical exercises in the operation and maintenance of P-3 communication/navigation systems, including high-, very-high-, and ultra-high-frequency communications circuits; recorders and teletypewriter group components and maintenance; radio navigation electronic circuitry (automatic direction finder, radar altimeter, Loran and TACAN equipment, beacon receiving set, and various indicator groups); and navigation systems, including computer groups.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (7/74).

NV-1715-0740

MINE DETECTION SONAR TECHNICAL MAINTENANCE

Course Number: C-570.

Location: Fleet Sonar School, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 4/55–12/63.

Objectives: To train enlisted personnel who have electronics backgrounds to operate, test, and repair mine detection sonar.

Instruction: Lectures and practical exercises in the operation, testing, and repair of mine detection sonar, including test equipment (meters, tube testers, oscilloscopes, signal generators, and C & R bridges), special circuits (power supplies, diodes and triodes, multivibrators, synchros, and DC generators), specific equipment components, AC and DC power, troubleshooting procedures, receiver and transmitter functions, servo systems, and calibration and alignment procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in electrical laboratory (7/74); in the upper-division baccalaureate category, credit in electrical laboratory on the basis of institutional evaluation (7/74).

NV-1715-0741

AUTOMATIC FLIGHT CONTROL SYSTEM (AN/ASW-15) AND AIR DATA COMPUTER (560T27-1) ORGANIZATIONAL MAINTENANCE

Course Number: C-602-3496.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train electricians to maintain and repair C-2A aircraft air data computers.

Instruction: Lectures and practical exercises in C-2A aircraft air data computer maintenance and repair, including flight controls, components description and operation, system operation, and preflight checks.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0742

MARINE AIR TRAFFIC CONTROL MAINTENANCE SUPERVISOR TRAINING, CLASS C

Course Number: Not available.

Location: Air Technical Training Center, Glynco, GA.

Length: 3 weeks (120 hours).

Exhibit Dates: 5/70–Present.

Objectives: To train electronics technicians to supervise the installation, maintenance, and repair of air traffic control systems.

Instruction: Lectures and practical exercises in air traffic control systems installation, maintenance, and repair, including system characteristics, system siting, flight inspections, maintenance policies, naval supply system, and maintenance funds administration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (7/74).

NV-1715-0743

NAVAL AIR WEAPONS SYSTEMS ORIENTATION, CLASS O

Course Number: Not available.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 8 weeks (320 hours).

Exhibit Dates: 8/57–12/68.

Objectives: To train enlisted personnel to supervise naval air weapons systems maintenance in operational aircraft squadrons.

Instruction: Lectures and practical exercises in naval air weapons systems maintenance, including aircraft armament control systems, air-launched guided missiles, electronic circuitry, fire control systems, all-weather aero-armament control system, missile systems introduction, and maintenance administration.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics (7/74).

NV-1715-0744

AVIATION ORDNANCE OFFICERS, CLASS O

Course Number: Not available.

Location: Air Technical Training Center, Jacksonville, FL.

Length: 10 weeks (400 hours).

Exhibit Dates: 1/53–12/68.

Objectives: To train officers to be aviation ordnance officers.

Instruction: Lectures and practical exercises in electricity and electronics, aviation fire control systems, aircraft munitions, turrets, machine guns, and torpedoes.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electricity and electronics (7/74).

NV-1715-0745

AN/SPS-40B/C/D RADAR SET DIFFERENCE MAINTENANCE

(Electronics Technician, Class C1)

Course Number: A-104-0164.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 7/76–Present.

Objectives: To provide the skills and knowledge necessary to maintain the AN/SPS-40B/C/D radar set.

Instruction: Course teaches maintenance of the AN/SPS-40B/C/D radar set; power control and distribution, air system, cooling system, antenna system, timing and trigger generation, frequency generation, low- and high-power transmitting group, receiver system, and test functions.

Credit Recommendation: In the vocational certificate category, 1 semester hour in communication system, 1 in electronics laboratory (11/77).

NV-1715-0746

E-2A AN/ASQ-58 INTEGRATED ELECTRONIC CENTRAL UHF–RT-542/ASQ AND RT-559/ASQ POWER SUPPLY–AM-2310/ASQ INTERMEDIATE MAINTENANCE

Course Number: C-102-3473.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train maintenance personnel to maintain UHF equipment and power supplies.

Instruction: Lectures and practical exercises in the maintenance of UHF equipment and power supplies, including transceiver block diagrams, circuit analysis, theory of operation, power distribution, and automatic equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (3/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (3/74).

NV-1715-0747

SH-3A/D AN/AQS-13A SONAR INTERMEDIATE MAINTENANCE

Course Number: C-130-3396.

Location: Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 6 weeks (240 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train fleet maintenance personnel in the maintenance of the AN/AQS-13A sonar system.

Instruction: Lectures and practical exercises in the maintenance of a specific sonar system, including introduction, associated test equipment, power supply, transmit and receive circuitry, video display, reeling machine and associated circuit analysis, minimum performance standards test, and troubleshooting.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electrical laboratory (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical laboratory on the basis of institutional evaluation (7/74).

NV-1715-0748

RA-5C PHOTO RECONNAISSANCE SYSTEM
ORGANIZATIONAL MAINTENANCE
(RA-5C Photo Reconnaissance Line Maintenance)

Course Number: C-100-3748.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 4 weeks (152–160 hours).

Exhibit Dates: 9/67–Present.

Objectives: To train selected enlisted personnel to maintain and repair the RA-5C photographic reconnaissance system.

Instruction: Lectures and practical exercises in the maintenance and repair of the RA-5C photographic reconnaissance system. Course includes knowledge of camera-system parts, function and control; familiarity of appropriate cameras designed to work with the system; and malfunction detection.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0749

AN/SPS-29E RADAR SET MAINTENANCE
(ELECTRONICS TECHNICIAN, CLASS C1)

Course Number: A-104-0151.

Location: Service School Command, San Diego, CA.

Length: 9 weeks (272 hours).

Exhibit Dates: 9/75–Present.

Objectives: To provide the skills and knowledge necessary to maintain the AN/SPS-29E radar set.

Instruction: Topics include operation and maintenance of the AN/SPS-29E radar set and the AN/SPA-62 receiver; AC and DC distribution, cooling and air pressurization function, monitoring function, trigger generating function, transmitter group, antenna function, normal realignment group, canceller, and integrator groups.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications systems, 2 in electronics laboratory (11/77).

NV-1715-0750

RF-4B CAMERA CONTROL SYSTEM
ORGANIZATIONAL MAINTENANCE

Course Number: C-198-3831.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 3/71–Present.

Objectives: To train enlisted personnel in RF-4B aircraft camera control system maintenance.

Instruction: Lectures and practical exercises in RF-4B aircraft camera control system maintenance, including preflight procedures, camera control system components, reconnaissance camera loading, installation and removal of cameras and associated equipment, and maintenance procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0751

RF-4B PHOTOGRAPHIC FILM CORRELATOR-PROCESSOR SET ES-55A
INTERMEDIATE MAINTENANCE

Course Number: C-198-3833.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 4 weeks (160 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train maintenance personnel to maintain the ES-55A correlator-processor.

Instruction: Lectures and practical exercises in ES-55A correlator-processor set maintenance, including side-looking radar (SLR) fundamentals, optical and electrical system functions, maintenance procedures, and troubleshooting and calibration procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1715-0752

RF-4B CAMERA CONTROL SYSTEM
INTERMEDIATE MAINTENANCE

Course Number: C-198-3832.

Location: Air Maintenance Training Detachment, El Toro, CA.

Length: 7 weeks (280 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train experienced maintenance personnel to operate, troubleshoot, repair, and maintain the RF-4B camera control system at the intermediate level.

Instruction: Lectures and practical exercises in the operation, troubleshooting, repair, and maintenance of the RF-4B camera control system, including basic electronics review, camera control panels, photographic system power, optical viewfinder, aircraft parameter control, still-picture camera equipment, low- and high-altitude panoramic camera components, aircraft camera mount set, test equipment, and troubleshooting procedures.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-1715-0753

1. DATA SYSTEMS TECHNICIAN, CLASS A, PHASE A-1
2. DATA SYSTEMS TECHNICIAN, CLASS A (DS "A")

Course Number: A-150-0025.

Location: Naval School, Mare Island, CA; Naval School, Great Lakes, IL.

Length: *Version 1:* 18 weeks (720 hours). *Version 2:* 38 weeks (1140 hours).

Exhibit Dates: *Version 1:* 1/70–Present. *Version 2:* 6/62–12/69.

Objectives: To train enlisted personnel to maintain data processing equipment.

Instruction: *Version 1:* Lectures and practical exercises in vacuum tube and transistor circuits, Boolean algebra, logic equation reduction, number systems, counters and registers, input/output devices, storage devices, and computer programming using the CP-788/GYK. The programming taught in this course is not directly applicable to commercial machines. (See NV-1715-0043, NV-1715-0044 and NV-1715-0045 for Phase A-2, Parts I, II, and III respectively.) *Version 2:* Part 1 of this course consists of the first 28 weeks of the Electronics Technician, Class A program (NV-1715-0730 or NV-1715-0731). Part 2 (10 weeks) includes data processing system functions, digital computer mathematics, digital computer programming, symbolic logic and Boolean algebra, data storage, input/output devices, digital control concepts, operation and application of dual-trace oscilloscope to digital computer maintenance, printed circuit board repair, and analog-to-digital conversion.

Credit Recommendation: *Version 1:* In the vocational certificate category, 12 semester hours in computers (3/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in computers (3/74). *Version 2:* In the vocational certificate category, 28 semester hours in electricity and electronics, 2 in digital computer programming, and 4 in digital computer repair and digital laboratory (7/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in physics (electricity), 12 in engineering electronics (12/68), 1 in digital computer programming, and 2 in digital computer repair laboratory (7/74); in the upper-division baccalaureate category, 6 semester hours in electricity and electronics, 3 as a technical elective in electronics, 1 in introduction to digital computers, and 1 in digital computer laboratory (7/74).

NV-1715-0754

ELECTRONICS TECHNICIAN, CLASS C7
(Electronics Technician, Class B)
(ET,B)

Course Number: A-100-0016; A-100-0017.

Location: *Version 1:* Service School Command, San Diego, CA. *All Versions:* Electronics Technician, Class B School, Treasure Island, CA; Electronics Technician, Class B School, Great Lakes, IL.

Length: *Version 1:* 27 weeks (810 hours). *Version 2:* 39 weeks (1170 hours). *Version 3:* 45 weeks (1350 hours). *Version 4:* 46 weeks (1380 hours).

Exhibit Dates: *Version 1:* 1/75–Present. *Version 2:* 12/71–12/74. *Version 3:* 7/69–11/71. *Version 4:* 6/62–6/69.

Objectives: To provide the basic theory necessary in the training of electronics technicians.

Instruction: *Version 1:* Lectures in basic mathematics including trigonometry, logarithms, complex numbers, Boolean algebra, as they pertain to electronics theory. Technical topics include AC/DC theory, transients, solid state devices, coupled circuits, synchros, servos, navigation and radar systems, and training in supervision and management. *Version 2:* Topics include direct current analysis, review mathematics for electronics, analysis of transient responses, vacuum tubes, solid-state devices, coupled circuits, multivibrators, time-base generators, synchros and servos, computers, communications, test equipment, communications system testing, continuous- and pulsed-wave radar systems, radar special circuits, navigation systems, and supervision and management. *Version 3:* Topics include review mathematics, circuits, basic algebra, matrix algebra, mathematics, applied technical mathematics, semiconductors, capacitance, inductance, circuit analysis, transient analysis, resonance, coupled circuits, vacuum tubes, power supplies, limiters, tuned power amplifiers, oscillators and frequency generation, communications test procedures, propagation, antennas, microwave devices, and computer logic circuits. *Version 4:* Topics include applied mathematics, electronic fundamentals and advanced fundamentals, calculus, inductance, capacity, resonance, transient analysis, vacuum and gas tubes, semiconductor devices, coupled circuits, graphical and small signal analysis, circuit applications, power supplies, multivibrators, voltage and current time-base generators, oscillators, communications systems, antenna theory, wave-guides, transmission lines, propagation, radar systems and basic computers, klystrons and magnetrons, synchro and servo systems, radar principles, Boolean algebra, navigational and identification system, digital and analog computers, electronic countermeasures, and electronic administration.

Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 20 semester hours in electronics technician training and 2 in humanities (industrial relations) (11/77). *Version 2:* In the vocational certificate category, 12 semester hours in mathematics and 20 in electronics (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in business organization and management, 12 in engineering electronics (12/68); in the upper-division baccalaureate category, 3 semester hours in mathematics, 5 in electronics (7/74). *Version 3:* In the vocational certificate category, 12 semester hours in mathematics and 20 in electronics (7/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in mathematics, 12 in engineering electronics (12/68); in the upper-division baccalaureate category, 4 semester hours in mathematics, 6 in electronics (7/74). *Version 4:* In the vocational certificate category, 12 semester hours in mathematics and 20 in electronics (7/74); in the lower-division baccalaureate/associate degree category, 12 semester hours in engineering electronics, 4 in mathematics (12/68); in the upper-division baccalaureate category, 3 semester hours in mathematics, 5 in electronics (7/74).

NV-1715-0755

1. INTERIOR COMMUNICATIONS (IC) ELECTRICIAN, CLASS C7
2. INTERIOR COMMUNICATIONS (IC) ELECTRICIAN, CLASS B
   (IC Electrician, Class B)
3. INTERIOR COMMUNICATIONS (IC) ELECTRICIAN, CLASS B
4. INTERIOR COMMUNICATIONS (IC) ELECTRICIAN, CLASS B

Course Number: A-623-0013.

Location: Naval Training Center, Great Lakes, IL.

Length: *Version 1:* 26 weeks (850 hours). *Version 2:* 30 weeks (900 hours). *Version 3:* 24 weeks (746 hours). *Version 4:* 34 weeks (1,020 hours).

Exhibit Dates: *Version 1:* 12/77–Present. *Version 2:* 4/71–11/77. *Version 3:* 9/69–3/71. *Version 4:* 7/63–8/69.

Objectives: To train students in the basic electrical and electronic skills necessary to maintain, troubleshoot, repair, align, and calibrate the electrical equipment found aboard a ship.

Instruction: *Version 1:* Lectures and practical exercises in AC and DC circuits, semiconductors, digital logic and logic circuits, static control devices, syncros and mechanical devices, and repair, calibration, troubleshooting and aligning of electrical, electronic and mechanical systems used in the operation of a ship. *Version 2:* Lectures and practical exercises in the repair, calibration, troubleshooting, and aligning of numerous electrical and electronic systems used in the operation of a ship. *Version 3:* Covers review of algebra; DC and AC series and parallel circuits; principles of magneticism; use of basic meters and the oscilloscope; RL, RC, and RLC circuits; transformer theory; electron tubes and semiconductors; operating characteristics of tube-type power supplies, audio, push-pull, and feedback amplifiers and cathode followers, solid-state power supplies, amplifiers, regulators, pulse-shaping circuits, and oscillators; basic logic operations; diode gate and DCTL circuit equivalents; inverters, clocks counters, half and full adders, and memory devices. *Version 4:* Topics include those in version 2, with considerable effort devoted to shipboard electrical and electronic systems, including motors, sound systems, syncros, magnetic amplifiers, monitoring systems, and power switchgear. There is much less emphasis on transistor circuits and digital logic.

Credit Recommendation: *Version 1:* In the vocational certificate category, 2 semester hours in computer technology, 7 in electricity and electronics, and 7 in electrical and electronics laboratory (9/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in computer technology, 3 in electricity and electronics and 1 in electronics laboratory (9/77). *Version 2:* In the vocational certificate category, 8 semester hours in electronics laboratory (7/74); in the lower-division baccalaureate/associate degree category, credit in electronics laboratory on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (7/74). *Version 3:* In the vocational certificate category, 8 semester hours in electricity and electronics (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics on the basis of institutional evaluation (7/74); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (7/74). *Version 4:* In the vocational certificate category, 6 semester hours in electricity and electronics (7/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, and credit in electrical laboratory on the basis of institutional evaluation (12/68); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (7/74).

NV-1715-0756

AN/SPS-29C RADAR SET MAINTENANCE (ELECTRONICS TECHNICIAN, CLASS C1)

Course Number: A-104-0150.

Location: Service School Command, San Diego, CA.

Length: 9 weeks (272 hours).

Exhibit Dates: 3/75–Present.

Objectives: To train selected personnel to maintain a radar system in a high degree of readiness.

Instruction: Course concentrates on familiarization and operation of a radar set and on the functional analysis and maintenance of that set. Includes AC/DC power distribution, cooling modulation, transmitting/receiving, ranging, tuning, and countermeasures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (11/77).

NV-1715-0757

E-2B WEAPON SYSTEM SPECIALIST ORGANIZATIONAL MAINTENANCE

Course Number: C-150-3482.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 9–12 weeks (384 hours).

Exhibit Dates: 5/71–Present.

Objectives: To train technicians to isolate, maintain, and repair the E-2B weapon system.

Instruction: Lectures and practical exercises in the isolation, maintenance, and repair of the E-2B weapon system. Course includes general avionics, IFPM, ATDS communications and navigation, ATDS detection, and control and display.

Credit Recommendation: In the vocational certificate category, 4 semester hours as an elective in instrument repair (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in instrument repair (8/74).

NV-1715-0758

SURFACE MISSILE SYSTEMS, OFFICER

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 11 weeks (330 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train enlisted personnel to operate fire control, missile battery, and surface missile systems.

Instruction: Lectures and practical exercises in the operation of surface missile weapons systems. Course includes equipment engineering, systems engineering, and weapon system management.

Credit Recommendation: Insufficient data for evaluation (8/74).

NV-1715-0759

DISTURBED LINE OF SIGHT GUNFIRE CONTROL SYSTEM MAINTENANCE

Course Number: J-113-1062.

Location: Fleet Anti-Air Warfare Training Center, Dam Neck, VA.

Length: 3 weeks (105 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to maintain and adjust disturbed-line-of-sight gunfire control systems.

Instruction: Lectures and practical exercises in disturbed-line-of-sight gunfire control systems maintenance and adjustment, including use of schematic prints and diagrams, concept and application of planned maintenance system, system data flow, power distribution, lead-computing gunsights, antenna-positioning system, gun order computations, and radar functional description, testing, adjustment, and troubleshooting procedures.

Credit Recommendation: In the vocational certificate category, 4 semester hours as an elective in electricity or electronics (8/74); in the lower-division baccalaureate/associate degree category, 4 semester hours as an elective in electricity or electronics (8/74).

NV-1715-0760

MK 113 MOD 7 FIRE CONTROL SYSTEM (FCS) MAINTENANCE
(Underwater Fire Control System (FCS) Technician (Torpedoes) Mk 113 Mod 7)

Course Number: A-113-0045; A-113-0017; A-113-0038.

Location: Guided Missiles School, Dam Neck, VA.

Length: 17–19 weeks (541–595 hours).

Exhibit Dates: 10/70–Present.

Objectives: To train enlisted personnel to operate and maintain underwater fire control systems.

Instruction: Lectures and practical exercises in the operation and maintenance of underwater fire control systems, including analog computations, digital equipment, and system casualty analysis.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic electronics, 3 as an elective in computer science (8/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in basic electronics, 3 as an elective in computer science (8/74).

NV-1715-0761

UH-2A/B Tactical Air Navigation (TACAN) AN/ARN-52(V)

Course Number: Not available.
Location: Air Maintenance Training Detachment, Ream Field, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 2/66–12/68.
Objectives: To train maintenance personnel to maintain and troubleshoot the AN/ARN-52 tactical air navigation (TACAN) trainer.
Instruction: Lectures and practical exercises in the operation, maintenance, and servicing of the AN/ARN-52 TACAN trainer, including circuitry procedures, power distribution and supply, block-diagram analysis, channel-servo operation, video decoder, and range circuits theory.
Credit Recommendation: In the vocational certificate category, 3 semester hours as an elective in electricity or electronics (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in electricity or electronics (8/74).

NV-1715-0762

MK 27 Gyrocompass Maintenance, Class C

Course Number: A-670-0026.
Location: Development and Training Center, San Diego, CA.
Length: 2 weeks (60 hours).
Exhibit Dates: 3/74–Present.
Objectives: To train personnel with previous electrical training to maintain the MK 27 gyrocompass.
Instruction: Lectures and practical exercises in the principles, maintenance, and repair of the MK 27 gyrocompass and instruction on the use of required test and monitoring equipment.
Credit Recommendation: In the vocational certificate category, 1 semester hour in small equipment repair (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in basic instrumentation (6/75).

NV-1715-0763

Launcher Technician

Course Number: A-633-0016.
Location: Guided Missiles School, Dam Neck, VA.
Length: 11 weeks (384 hours).
Exhibit Dates: 2/71–Present.
Objectives: To provide training in all weapon systems in use aboard Fleet Ballistic Missile (FBM) submarines.
Instruction: Classroom and laboratory instruction in submarine subsystems, including hydraulics, pneumatics, electric power generation, and engineering power plant; navigational subsystems; fire control; rockets and missiles; missile guidance and flight control; mechanical and electrical launcher subsystems; and electrical, power, and hydraulic test and calibration equipment.
Credit Recommendation: In the vocational certificate category, 4 semester hours in hydraulic, pneumatic, or electrical systems (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in hydraulic, pneumatic, or electrical systems (6/75); in the upper-division baccalaureate category, 4 semester hours in hydraulic, pneumatic, or electrical systems (6/75).

NV-1715-0764

DLG 6-16 Combat System

Course Number: A-121-0189.
Location: Guided Missiles School, Dam Neck, VA.
Length: 10 weeks (330 hours).
Exhibit Dates: 10/72–Present.
Objectives: To provide instruction for senior maintenance supervisors in the integration of the DLG 6-16 Combat System.
Instruction: Lectures and practical exercises in the operation and interface of the various subsystems of the DLG 6-16 Combat System.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0765

RF-4B Shoehorn Organizational Maintenance

Course Number: C-102-3831; C-102-0242.
Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cherry Point, NC.
Length: 4 weeks (160 hours).
Exhibit Dates: 8/69–Present.
Objectives: To train fleet maintenance personnel to maintain the Shoehorn aircraft radar system.
Instruction: Lectures and practical exercises in the Shoehorn aircraft radar system, including radar review, logic symbology, corrosion control, introduction to planned maintenance, and decibels; and purpose, components, operational block diagrams, and interface and test equipment of the radar homing and warning system, the radar receiver, the countermeasures set, the countermeasures receiver and transmitter, the tagging and blanking unit, and the countermeasures chaff dispenser set.
Credit Recommendation: In the vocational certificate category, credit in electronics on the basis of institutional evaluation (3/74); in the lower-division baccalaureate/associate degree category, credit in electronics on the basis of institutional evaluation (3/74).

NV-1715-0766

Electronics Officers (Maintenance)

Course Number: Not available.
Location: Electronics Officers School, Great Lakes, IL.
Length: *Version 1:* 48 weeks (1440 hours). *Version 2:* 52 weeks (1620 hours).
Exhibit Dates: *Version 1:* 12/63–12/68. *Version 2:* 1/58–11/63.
Objectives: To provide officers who have electronics backgrounds with advanced training in electronics and management skills.
Instruction: *All Versions:* Lectures and practical exercises in mathematics, including algebra and trigonometry; basic electricity and electronics, including circuit analysis, motors, generators, power supplies, vacuum tubes, amplifiers, and oscillators; and modulation and detection, energy transmission, servomechanisms, and test equipment operation. *Version 1:* Instruction includes calculus, physics, digital numbers, and Boolean algebra, and semiconductors. *Version 2:* Instruction emphasizes special equipment operation.
Credit Recommendation: *Version 1:* In the lower-division baccalaureate/associate degree category, 24 semester hours in electricity or electronics, 9 in mathematics, 8 in physics (3/74); in the upper-division baccalaureate category, 5 semester hours in mathematics, 3 in physics, 10 in engineering electronics (12/68). *Version 2:* In the lower-division baccalaureate/associate degree category, 15 semester hours in electricity or electronics, 6 in mathematics (3/74); in the upper-division baccalaureate category, 5 semester hours in mathematics, 3 in physics, 10 in engineering electronics (12/68).

NV-1715-0767

Light Airborne Multi-Purpose System (LAMPS) Sensor Operator

Course Number: D-210-0020.
Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.
Length: 5 weeks (182 hours).
Exhibit Dates: 4/68–Present.
Objectives: To train antisubmarine airborne crewmembers in the operation of electronic sensor equipment.
Instruction: Lectures and laboratory exercises in the operation of electronic sensor equipment, characteristics of underwater sound signals, analysis of target signals, radar fundamentals and operation, and active and passive acoustics.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/75).

NV-1715-0768

Tactical Electronic Warfare

Course Number: D-00-0032.
Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.
Length: 5 weeks (200 hours).
Exhibit Dates: 4/68–Present.
Objectives: To train pilots and flight officers in the concepts, planning, and techniques of electronic warfare.
Instruction: Classroom and practical training in active and passive electronic warfare policies and tactics and operation of various electronic warfare systems and equipment.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics (6/75).

NV-1715-0769

E-2B Detection System Organizational Maintenance

Course Number: C-104-3471.
Location: Air Maintenance Training Detachment, North Island, CA.
Length: 2 weeks (80 hours).
Exhibit Dates: 10/73–Present.
Objectives: To train electronics technicians in the maintenance of the E-2B detection system.
Instruction: Instruction in radar principles, data acquisition, encoding, troubleshooting, and test instrument usage.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/75).

NV-1715-0770

ASROC Launching Group Mk 16

Course Number: A-121-0010.

Location: Gunner's Mate Class C, Great Lakes, IL.

Length: 10 weeks (450 hours).

Exhibit Dates: 10/69–4/76.

Objectives: To provide gunner's mates with training in the maintenance, adjustment, and operation of the Launching Group Mk 16.

Instruction: Lectures and practical exercises in ASROC weapon system, launching group Mk 16, administration and supply, stand Mk 107 and carriage Mk 7, relay transmitters, power train, power drive amplifier, elevation power drive, launcher and missile simulator and checkout, hydraulic and electronic systems, and hydraulic and pneumatic devices.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electro-mechanical laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electro-mechanical laboratory (6/75).

NV-1715-0771

Air Traffic Control Center Equipment Maintenance AN/TRN-28, Class C

Course Number: C-103-2027.

Location: Air Technical Training Center, Glynco, GA.

Length: 6 weeks (200 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train technicians to maintain electronic air traffic control equipment.

Instruction: Lectures and practical exercises in block diagram analysis, troubleshooting techniques, electronic circuitry, encoding, transmission and system alignment, and drive development.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic systems repair (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic laboratory (6/75).

NV-1715-0772

AN/SQA-13 (V) Independent Variable Depth Sonar Operation and Maintenance

Course Number: *Version 1:* K-041-2019. *Version 2:* K-041-124.

Location: Fleet Training Center, San Diego, CA.

Length: *Version 1:* 2 weeks (60 hours). *Version 2:* 3 weeks (90 hours).

Exhibit Dates: *Version 1:* 1/74–Present. *Version 2:* 6/71–12/73.

Objectives: To train personnel to operate, maintain, and repair a variable depth sonar hoist mechanism.

Instruction: Lectures and practical exercises in basic hydraulics, basic electricity, and specialized subassemblies related to a military sonar hoist mechanism.

Credit Recommendation: *Version 1:* Credit is not recommended because of the limited technical nature of the course (6/75). *Version 2:* In the vocational certificate category, 1 semester hour in basic electrical laboratory (6/75).

NV-1715-0773

AN/ARC-52 Radio Set Intermediate Maintenance

Course Number: C-102-3019.

Location: Air Maintenance Training Detachment, Meridian, MS; Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, New River, NC; Air Maintenance Training Detachment, Santa Ana, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Imperial Beach, CA; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Key West, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 12/70–Present.

Objectives: To provide maintenance personnel with the technical knowledge necessary to maintain a specific military radio set.

Instruction: Lectures and practical exercises in the operation of the AN/ARC-52 radio receiver and transmitter with instruction in diagnosis, troubleshooting, maintenance, and repair of specific subsections of the equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in basic communications laboratory (6/75).

NV-1715-0774

AN/AQA-7 (V) Sonar Computer-Recorder Group Intermediate Maintenance

Course Number: C-102-3075.

Location: Air Maintenance Training Detachment, Patuxent River, MD; Air Maintenance Training Detachment, Moffett Field, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 11 weeks (440 hours).

Exhibit Dates: 2/74–Present.

Objectives: To train personnel in the maintenance procedures for a sonar computer-recorder and the specialized test equipment.

Instruction: Lectures and practical exercises in the theory, operation, and maintenance of a sonar computer-recorder, including demultiplexer, frequence, multiplier storer, spectrum analyzer-quantizer, and digital memory units to include fault localization, fault isolation, component replacement, disassembly, interchange, reassembly, alignment/adjustment, and safety precautions and checkout procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications electives, 1 in communications laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in communications laboratory (6/75).

NV-1715-0775

AN/ALR-54 Countermeasures Receiving Set Intermediate Maintenance

Course Number: C-102-3389.

Location: Air Maintenance Training Detachment, Lakehurst, NJ; Air Maintenance Training Detachment, Imperial Beach, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/72–Present.

Objectives: To provide instruction in the maintenance of electronic countermeasures receiving equipment.

Instruction: Instruction covers theory and practical applications of specific circuits, RF detection, video display, power supplies, logic boards, and filters, and practical exercises in circuit analysis, troubleshooting, and repair.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/75); in the upper-division baccalaureate category, credit in electronics laboratory on the basis of institutional evaluation (6/75).

NV-1715-0776

E-2B Electronic Systems Organizational Maintenance

Course Number: C-102-3479.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 11/73–Present.

Objectives: To provide maintenance technicians with overall knowledge of a specialized electronics system.

Instruction: Lectures and practical exercises to include block diagram and functional description of communications/navigations system, detection system and data links; system interface; basic operation and troubleshooting; removal and replacement of Weapons Replaceable Assemblies (WRAs); installation procedures; and test equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (6/75).

NV-1715-0777

E-2B Airborne Tactical Data Systems (ATDS) Operator Training

Course Number: D-102-0001.

Location: Carrier Airborne Early Warning Training Squadron 120, Norfolk, VA.

Length: 15 weeks (523 hours).

Exhibit Dates: 1/70–Present.

Objectives: To provide personnel with basic skills to operate, maintain, and troubleshoot the specialized aircraft tactical data system of the E-2B aircraft.

Instruction: Lectures and practical exercises in block diagram description and troubleshooting procedures for detection; computer, communication, and navigation subsystems; and the aircraft communication and navigation system, with emphasis on test equipment, fault isolation, and basic deployment.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electrical laboratory (6/75).

NV-1715-0778

Basic Point Defense Surface Missile System

Course Number: A-121-0122.

Location: Combat Systems Technical School Command, Mare Island, CA.

Length: 20 weeks (353 hours).

Exhibit Dates: 9/71–Present.

Objectives: To train personnel in the operation, maintenance, troubleshooting, and repair of specialized military equipment.

Instruction: Lectures and practical exercises in the principles of amplitude modulation and detection, analysis of specialized electronic systems, and maintenance and trouble isolation procedures.

Credit Recommendation: In the vocational certificate category, 7 semester hours in electrical test and maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electrical test and maintenance (6/75).

NV-1715-0779

1. ELECTRONIC WARFARE FUNDAMENTALS AND PREVENTIVE MAINTENANCE TECHNOLOGY
   (Electronic Warfare Fundamentals/Technology, Class A1)
2. ELECTRONIC WARFARE FUNDAMENTALS AND PREVENTIVE MAINTENANCE TECHNOLOGY
3. ELECTRONIC WARFARE TECHNICIAN, CLASS A (A-1), FUNDAMENTALS/BASIC OPERATOR
   (Electronic Warfare Technician, Class A (A-1), Fundamentals)

Course Number: *Version 1:* A-102-0209; A-102-0214. *Version 2:* A-102-0154. *All Versions:* A-102-0093.

Location: *Version 1:* Naval Technical Training Center, Corry Station, Pensacola, FL. *Version 2:* Naval Technical Training Center, Corry Station, Pensacola, FL. *Version 3:* Schools Command, Treasure Island, CA.

Length: *Version 1:* 17–19 weeks (680–760 hours). *Version 2:* 17–19 weeks (680–760 hours). *Version 3:* 17–21 weeks (595–721 hours).

Exhibit Dates: *Version 1:* 2/77–Present. *Version 2:* 4/75–1/71. *Version 3:* 3/72–3/74.

Objectives: To provide technicians with the fundamentals of transistor/vacuum tube electronics necessary to maintain and repair electronic warfare systems.

Instruction: *All Versions:* Classroom and laboratory instruction in electronic circuit theory including linear and nonlinear circuits, motors, antennas, power supplies, receiver principles, pulse and video display circuits, deception repeaters, transmission systems, electromagnetic devices, and electronic systems maintenance. *Version 1:* Includes instruction in digital techniques.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in semiconductor devices, 3 in digital techniques, 3 in communications circuits, and 3 in UHF systems (1/77); in the lower-division baccalaureate/associate degree category, credit in semiconductor devices and basic digital systems on the basis of institutional evaluation (1/77). *Version 2:* In the vocational certificate category, 3 semester hours in semiconductor devices, 3 in UHF systems, and 3 in communications circuits (1/77); in the lower-division baccalaureate/associate degree category, credit in semiconductor devices on the basis of institutional evaluation (1/77). *Version 3:* In the vocational certificate category, 3 semester hours in fundamentals of electronic circuit theory (6/75); in the lower-division baccalaureate/associate degree category, 6 semester hours in fundamentals of electronic circuit theory (6/75); in the upper-division baccalaureate category, 1 semester hour in electronics laboratory (6/75).

NV-1715-0780

1. ELECTRONIC WARFARE ELECTRONIC SUPPORT MEASURES SYSTEM MAINTENANCE, CLASS A
2. ELECTRONIC WARFARE TECHNICIAN, CLASS A (A-2), ELECTRONIC SUPPORT MEASURES SYSTEM MAINTENANCE

Course Number: *Version 1:* A-102-0221. *All Versions:* A-102-0094.

Location: *Version 1:* Naval Technical Training Center, Corry Station, Pensacola, FL. *Version 2:* Schools Command, Treasure Island, CA.

Length: *Version 1:* 7–12 weeks (280–480 hours). *Version 2:* 12–14 weeks (360–420 hours).

Exhibit Dates: *Version 1:* 1/77–Present. *Version 2:* 3/72–12/76.

Objectives: To provide electronics technicians with instruction in the operation, maintenance, and repair of electronic countermeasures systems.

Instruction: Classroom and laboratory instruction in the use of specialized test equipment and the operation and maintenance of complex electronic circuitry.

Credit Recommendation: *Version 1:* In the vocational certificate category, 6 semester hours in electronic maintenance (1/77). *All Versions:* In the vocational certificate category, 4 semester hours in maintenance and repair of electronic systems (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/75).

NV-1715-0781

ELECTRONIC WARFARE DECEPTION REPEATER SYSTEMS MAINTENANCE, AN/SLQ-22B(V)1
(Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22A(V)2)
(Electronic Warfare Technician, Class A (A-3), Deception Repeater Systems Maintenance)
(Electronic Warfare Technician, Class A (A-3), Electronic Countermeasures Systems Maintenance)

Course Number: A-102-0236; A-102-0219; A-102-0095.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL; Schools Command, Treasure Island, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 3/72–Present.

Objectives: To train technicians in the operation and repair of electronic countermeasures systems.

Instruction: Classroom and laboratory instruction in block diagram theory, circuit analysis, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in UHF electronics maintenance (1/77).

NV-1715-0782

ELECTRONIC WARFARE TECHNICIAN, CLASS A (A-4), TACTICAL OPERATIONS

Course Number: A-102-0096.

Location: Schools Command, Treasure Island, CA.

Length: 10 weeks (350 hours).

Exhibit Dates: 3/72–Present.

Objectives: To train technicians in the principles of electronic warfare systems.

Instruction: Classroom and laboratory instruction in electronic warfare analysis and specific hardware systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic systems repair laboratory techniques (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic systems repair laboratory techniques (6/75).

NV-1715-0783

SONAR AN/SQS-39 THROUGH 46 AND ASPECT MAINTENANCE

Course Number: A-130-0043.

Location: Fleet Sonar School, Key West, FL.

Length: 10 weeks (330 hours).

Exhibit Dates: 8/69–Present.

Objectives: To train personnel to service and maintain a specific military sonar system.

Instruction: Lectures and practical exercises in the operation of a specific sonar system to include troubleshooting, calibration, DC power supply circuits, AC power distribution, time base generators, and other related sonar circuitry.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electronics (6/75).

NV-1715-0784

TORPEDOMAN'S MATE, CLASS A, SUBMARINE AND SURFACE PREREQUISITE

Course Number: A-123-0148.

Location: Naval Training Center, Orlando, FL.

Length: 2 weeks (67 hours).

Exhibit Dates: 6/70–Present.

Objectives: To provide personnel with basic skill-level training in hand tools and electrical measurement devices prerequisite to entry in the Torpedoman's Mate, Class A program.

Instruction: Classroom and practical instruction in common hand tools, basic electricity, VOM's, megohmmeters, and soldering techniques.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic test equipment (6/75).

NV-1715-0785

TORPEDOES MK 46 MOD 1, MK 44 MOD 1, AND AWTT MK 32 ORGANIZATIONAL MAINTENANCE

Course Number: A-123-0145.

Location: Service Schools Command, Orlando, FL.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/70–Present.

Objectives: To provide personnel with knowledge of introductory operational and maintenance procedures for torpedoes.

Instruction: Instruction includes physical and operational characteristics and firing craft procedures for the surface/craft-fired antisubmarine warfare weapons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0786

TORPEDO MK 45 MODS 1 AND 2 TEST EQUIPMENT INTERMEDIATE MAINTENANCE

Course Number: A-123-0137.

Location: Service Schools Command, Orlando, FL.

Length: 7 weeks (210 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train personnel in the use and maintenance of torpedo test equipment.

Instruction: Instruction and practical experience in the maintenance of various test sets, including preparation for use, component replacement and adjustment, performance tests, troubleshooting, and operational checks.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0787

TORPEDO MK 37 MODS 0, 1, 2, AND 3 ORGANIZATIONAL MAINTENANCE

Course Number: A-123-0143.

Location: Service Schools Command, Orlando, FL.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/70–Present.
Objectives: To provide personnel with introductory training in the maintenance of torpedoes aboard operating submarines.
Instruction: Instruction includes physical and operational characteristics of the torpedo; pre-loading and unloading procedures; patrol maintenance, emergency, and post-fire procedures; and film analysis.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0788

Torpedo Mk 37 Mods 0, 2, and 3 Test Equipment Intermediate Maintenance

Course Number: A-123-0134.
Location: Service Schools Command, Orlando, FL.
Length: 7 weeks (200 hours).
Exhibit Dates: 1/70–Present.
Objectives: To train technicians in test procedures for torpedo test equipment.
Instruction: Instruction and practical training in the use and maintenance of torpedo test equipment.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0789

Torpedo Mk 37 Mods 0, 2, and 3 Intermediate Maintenance

Course Number: A-123-0133.
Location: Service Schools Command, Orlando, FL.
Length: 14 weeks (424 hours).
Exhibit Dates: 1/70–Present.
Objectives: To train personnel in the maintenance of torpedo control systems.
Instruction: Instruction and practical training in the maintenance of electrical control systems for torpedoes, including troubleshooting procedures and functions of basic control system components.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1715-0790

AN/SPS-43A/37A Radar Set Maintenance (Electronics Technician, Class C1)
(AN/SPA-37/37A Radar Sets, AN/SPA-63 Countermeasures Receiving Group, and AN/SPS-43/43A Radar Sets Differences)

Course Number: A-104-0149.
Location: Service School Command, San Diego, CA.
Length: 11 weeks (330 hours).
Exhibit Dates: 11/77–Present.
Objectives: To train electronics technicians with the knowledge of radar and ECM to operate, maintain, and calibrate specified radar sets and the AN/SPA-63 countermeasures receiver.
Instruction: Lectures and practical exercises on the operation, maintenance and calibration of the AN/SPS-37/37A, AN/SPS-43/43A radar sets and the AN/SPA-63 ECM receiver. Includes system parameters, power supplies and distribution, pulse generators and exciters, modulators and power amplifiers, power monitor and vswr circuits, antenna and auto-tune system, receiver circuits, test equipment usage, generators, frequency counters, and oscilloscopes and dvms.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in radar systems and measurements (11/77).

NV-1715-0791

Telemetering Ground Station AN/SKQ-2

Course Number: A-121-0113.
Location: Guided Missiles School, Mare Island, CA.
Length: 4 weeks (100 hours).
Exhibit Dates: 1/70–Present.
Objectives: To provide technicians with practical training in the operation, adjustment, and maintenance of telemetry systems.
Instruction: Instruction includes electronic circuitry, block diagram analysis, and troubleshooting techniques.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic equipment laboratory (6/75).

NV-1715-0792

Tartar Mk 152 Computer Complex

Course Number: A-150-0079; A-150-0080.
Location: Guided Missiles School, Mare Island, CA; Guided Missiles School, Dam Neck, VA.
Length: 9 weeks (283 hours).
Exhibit Dates: 6/71–Present.
Objectives: To train personnel in the maintenance of computer systems, digital computer interfaces, and signal converters associated with fire control computers.
Instruction: Instruction and practical experience in the operation and maintenance of interface and signal conversion equipment for computer systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in computer interface circuits (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in computer interface circuits (6/75).

NV-1715-0793

Talos Radar AN/SPW-2B

Course Number: A-104-0085.
Location: Naval Schools Command, Mare Island, CA.
Length: 16–18 weeks (534–590 hours).
Exhibit Dates: 3/71–Present.
Objectives: To train personnel in the operation, maintenance, troubleshooting, and repair of specialized radar equipment.
Instruction: Practical training in operational principles of general purpose test equipment, including oscilloscopes, power and frequency meters, and specialized military equipment. Topics also include circuit analysis and maintenance and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics maintenance (6/75).

NV-1715-0794

SUBROC Missile Mk 28 Mod 1 Intermediate Maintenance

Course Number: A-121-0144.
Location: Service Schools Command, Orlando, FL.
Length: 7 weeks (326 hours).
Exhibit Dates: 1/70–Present.
Objectives: To train personnel to test, assemble, disassemble, and perform intermediate maintenance on the SUBROC guided missile.
Instruction: Lectures and practical exercises in identification and assembly of parts, including mechanical handling, installation of fittings, and test monitoring.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1715-0795

SUBROC Missile Mk 28 Mod 0 Test Equipment Intermediate Maintenance

Course Number: A-121-0145.
Location: Service Schools Command, Orlando, FL.
Length: 20 weeks (632 hours).
Exhibit Dates: 4/66–Present.
Objectives: To train personnel to use the circuit schematics of the SUBROC missile and to service test equipment for trouble analysis.
Instruction: Lectures and practical exercises in checkout and assembly of the SUBROC missile to cover circuitry and circuit tracing; test equipment and test equipment calibration; trouble isolation; operational checks; and electronic fundamentals.
Credit Recommendation: In the vocational certificate category, 10 semester hours in equipment repair and maintenance, 1 in test equipment laboratory (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in test equipment laboratory (6/75).

NV-1715-0796

RT-736 and KY-531 TACAN (Tactical Air Navigation) Intermediate Maintenance

Course Number: C-102-3098.
Location: Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Oceana, VA; Air Maintenance Training Detachment, Whidbey Island, WA.
Length: 3 weeks (120 hours).
Exhibit Dates: 2/74–Present.
Objectives: To provide avionics maintenance personnel with instruction in the maintenance of the TACAN system.
Instruction: Lectures and practical exercises in TACAN theory, pulse decoder, block diagram analysis, and troubleshooting.
Credit Recommendation: In the vocational certificate category, 2 semester hours in aircraft electronics (6/75).

NV-1715-0797

RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance

Course Number: C-102-3094.
Location: Air Maintenance Training Group, Whidbey Island, WA; Air Maintenance Training Group, Oceana, VA; Air Maintenance Training Group, Miramar, CA; Air Maintenance Training Group, El Toro, CA; Air Maintenance Training Group, Cherry Point, NC; Air Maintenance Training Group, North Island, CA.
Length: 3 weeks (120 hours).
Exhibit Dates: 11/73–Present.
Objectives: To provide maintenance personnel with knowledge of theory of operation, testing, and system troubleshooting procedures for a military communications system.
Instruction: Lectures and practical exercises to include maintenance procedures, pulse decoder circuits, block diagrams, and

an introduction to receiver/transmitter theory.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/75).

NV-1715-0798

OA-3731/ASM-76 Computer Detector Test Console Intermediate Maintenance

Course Number: C-150-3486.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 5 weeks (200 hours).

Exhibit Dates: 2/74–Present.

Objectives: To train personnel in the maintenance of a specific computer detector test console.

Instruction: Instruction in adapter components; signal generators, including power supplies and timing generators; and testing theory of military computer detection systems.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic electronics laboratory (6/75).

NV-1715-0799

Marine Air Traffic Control Communications Repairman, Class C

Course Number: C-103-2029.

Location: Naval Air Training Command, Memphis, TN; Air Technical Training Center, Glynco, GA.

Length: 7 weeks (233 hours).

Exhibit Dates: 5/73–Present.

Objectives: To train personnel to inspect, test, maintain, and repair a specific military radio transmitter and receiver and associated communications equipment.

Instruction: Lectures and practical exercises in radio receiver and transmitter maintenance and repair, including system troubleshooting, circuit tracing on a block diagram level, and alignment procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in basic communications laboratory (6/75).

NV-1715-0800

1. Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C)
2. High Frequency Direction Finding (HFDF) Communications Technical Control
(Communications Technician "O" Branch, HFDF Communications Technical Control)

Course Number: A-500-0017.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: *Version 1:* Self-paced 6 weeks (240 hours). *Version 2:* 6 weeks (225 hours).

Exhibit Dates: *Version 1:* 2/76–Present. *Version 2:* 1/70–1/76.

Objectives: To train communications technicians to operate and repair direction finding communications systems.

Instruction: Classroom and practical instruction in special electronic circuits, telegraph, teletype, and communications systems.

Credit Recommendation: *Version 1:* In the vocational certificate category, 1 semester hour in communication equipment operation (1/77). *Version 2:* In the vocational certificate category, 4 semester hours in electronic systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (6/75).

NV-1715-0801

Terrier ASMD-70 55B Radar Update
(Terrier AN/SPG-55B ASMD 70 Radar Update)

Course Number: A-100-0023.

Location: Combat Systems Technical School Command, Mare Island, CA.

Length: 5 weeks (173 hours).

Exhibit Dates: 10/71–Present.

Objectives: To provide personnel, previously trained in radar, with the basic knowledge and skills required to maintain a modified radar.

Instruction: Lectures and practical training in the operation and maintenance of the modified radar, including range tracking circuits and narrow pulse techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-1715-0802

Gunner's Mate, Class B

Course Number: A-041-0014.

Location: Gunner's Mate School, Great Lakes, IL.

Length: 25 weeks (752 hours).

Exhibit Dates: 12/67–12/73.

Objectives: To train personnel in the basic principles and procedures of operating and maintaining gun mounts and associated fire control circuits.

Instruction: Lectures and practical exercises in basic electricity and electronics, mathematics, mechanics, and equipment troubleshooting.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics, 2 in electricity, and 1 in mathematics (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics and 2 in electricity (6/75); in the upper-division baccalaureate category, 3 semester hours in electronics on the basis of institutional evaluation (6/75).

NV-1715-0803

Mk 101 Mods 17 Through 20 Fire Control System (FCS) Maintenance, Class C)

Course Number: A-113-0057.

Location: Fire Control Technician, Class C School, Great Lakes, IL.

Length: 21 weeks (710–737 hours).

Exhibit Dates: 1/71–Present.

Objectives: To train fire control technicians to operate, adjust, and maintain an underwater fire control system.

Instruction: Instruction includes block diagram analysis, troubleshooting techniques, electronic circuitry, and electro-mechanical devices.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic systems and 2 in electronics laboratory (9/77).

NV-1715-0804

Terrier Weapon System DLG-28 (Class System Level Maintenance)

Course Number: A-121-0098.

Location: Guided Missiles School, Mare Island, CA.

Length: 13 weeks (450 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train fire control technicians in the operation and repair of weapon control systems.

Instruction: Lectures and practical exercises in systems components, alignment, maintenance and troubleshooting, including block diagram analysis, signal flow, and repair techniques.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronic systems maintenance (6/75); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (6/75).

NV-1715-0805

Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7

Course Number: A-121-0182; A-121-0183.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 12 weeks (325 hours).

Exhibit Dates: 3/72–Present.

Objectives: To train senior fire control technicians to supervise the operation and maintenance of a Tartar weapon system.

Instruction: Lectures and laboratories in block diagrams, including maintenance and operations procedures, and testing and alignment of weapon system equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-1715-0806

Sonar AN/SQS-26AX Retrofit Maintenance

Course Number: A-130-0044.

Location: Fleet Antisubmarine Training Center, San Diego, CA; Fleet Sonar School, Key West, FL.

Length: 26 weeks (798–842 hours).

Exhibit Dates: 5/71–Present.

Objectives: To train technicians in the operation and repair of a sonar system.

Instruction: Lectures and laboratory instruction in the theory of operation and preventive and corrective maintenance of the sonar set and Louis-Allis power supply. Topics include linear and nonlinear electronic circuits, block diagram analysis, and troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic troubleshooting (8/77).

NV-1715-0807

A-7A/B/E AN/ASW-26/30 Automatic Flight Control System Organizational Maintenance
(A-7 Automatic Flight Control System Organizational Maintenance)

Course Number: C-602-3788; C-602-195.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2–3 weeks (80–100 hours).

Exhibit Dates: 9/68–Present.

Objectives: To provide instruction in the maintenance of an automatic flight control system.

Instruction: Lectures and practical exercises on circuit analysis applied to flight control systems, stabilization, and automatic landing assemblies.

Credit Recommendation: In the vocational certificate category, 2 semester hours in advanced avionics/electronics maintenance (6/75).

NV-1715-0808

Fire Control Technician Class A, Phase 2SS

Course Number: A-113-0026.

Location: Service School Command, Great Lakes, IL.

Length: 12 weeks (360 hours).

Exhibit Dates: 1/67–Present.

Objectives: To provide fire control technicians with the electrical/electronic/mechanical fundamentals related to torpedoes and underwater fire control systems.

Instruction: Lectures and practical exercises in electro-mechanical devices, analog computers, mechanical integrators, and trigonometry function generating devices.

Credit Recommendation: In the vocational certificate category, 8 semester hours in analog computers and electro-mechanical systems (6/75); in the lower-division baccalaureate/associate degree category, 4 semester hours in analog computers and electro-mechanical systems and 1 in laboratory (6/75); in the upper-division baccalaureate category, 1 semester hour in laboratory (6/75).

NV-1715-0809

AN/SPS-40B Radar Set Maintenance (Electronics Technician, Class C1)

(AN/SPS-40B/C/D Radar Set Maintenance)

Course Number: A-104-0133.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 8 weeks (240 hours).

Exhibit Dates: 4/76–Present.

Objectives: To provide the skills and knowledge necessary to operate and maintain the AN/SPS-40B/C/D radar set.

Instruction: Course includes operation and maintenance of the AN/SPS-40B/C/D radar set; power control and distribution; air system; cooling system; antenna system; timing and trigger generation; frequency generation; low- and high-power transmitting group; receiver system; and test functions.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communications systems, 2 in electronics laboratory (11/77).

NV-1715-0810

AN/SRN-18 Radio Satellite Navigation Set Maintenance, Class C-1

Course Number: A-102-0082.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 5 weeks (150 hours).

Exhibit Dates: 10/77–Present.

Objectives: To provide the skills and knowledge necessary to maintain the AN/SRN-18 radio navigation set.

Instruction: Includes operation and familiarization with AN/SRN-18; antenna/receiver signals, DPU, power supply, thermal printer, test generator; system troubleshooting; and supply procedures.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic communications systems, 1 in electronic communications laboratory (11/77).

NV-1715-0811

AN/APX-72 Series IFF Transponder System Maintenance

(AN/APX-72 Maintenance, Class C-1)

Course Number: A-102-0063.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/75–Present.

Objectives: To provide skills and training necessary to perform preventive and corrective maintenance on an aircraft interrogation system.

Instruction: Topics include theoretical and practical instruction in operation, maintenance, alignment, adjustment, and repair of a transponder system.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics or aircraft electronics (11/77).

NV-1715-0812

AIMS Mk XII IFF System Maintenance (Electronics Technician, Class C1)

Course Number: A-102-0062.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 16 weeks (480 hours).

Exhibit Dates: 10/75–Present.

Objectives: To provide skills and knowledge necessary to perform preventive and corrective maintenance required to maintain the Mk XII aircraft integration system.

Instruction: Course includes operation and maintenance of radar test sets, transponder systems, interrogator systems, interference blankers, and decoders.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications systems, 3 in electronics laboratory (11/77).

NV-1715-0813

AIMS Mk XII System Differences Equipment Maintenance, Class C-1

Course Number: A-102-0064.

Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.

Length: 4 weeks (120 hours).

Exhibit Dates: 11/75–Present.

Objectives: To train electronics technicians to operate, repair, maintain and calibrate the accessory equipment AIMS Mk XII (interrogator and decoder unit) associated with an aircraft interrogator unit.

Instruction: Lectures and practical exercises in the operation and purposes of the Mk XII system, the AN/UPX-27 interrogator set, and the AN/UPA-59A decoder group equipment; computer logic, trigger and encoding circuits, transmitter and receiver circuits and troubleshooting and alignment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (11/77).

NV-1715-0814

AN/UPN-12 Loran Receiver Set Maintenance (Electronics Technician, Class C1)

(Electronics Technician, Class C, AN/UPN-12 Loran Receiving Set Maintenance, Class F-1)

Course Number: A-102-0040.

Location: Service School Command, San Diego, CA; Fleet Mine Warfare Training Center, Charleston, SC; Fleet Training Center, Norfolk, VA.

Length: 2 weeks (60-80 hours).

Exhibit Dates: 8/75–Present.

Objectives: To provide the skills and knowledge necessary to operate and maintain the AN/UPN-12(A) Loran receiver set.

Instruction: Topics include operation and familiarization; functional block diagram, pulse section, counter section, switch section, delay crank section, master pedestal section, pedestal generator section, sweep section, AFC section, and alignment and fault isolation procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in communications systems (11/77).

NV-1715-0815

Miniature Electronic Repair Program, Class F-1

(Miniature/Microminiature Electronic Repair (2M))

Course Number: A-100-0034.

Location: Fleet Training Center, Norfolk, VA; Service School Command, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 11/76–Present.

Objectives: To provide personnel with the latest methods in disassembly, repair, and soldering of miniature printed circuits, components, terminals, circuit board laminates and conductors.

Instruction: Practical training in printed circuit board repair, terminal and connector pin soldering, micro-electronic circuit soldering, micro-miniature circuit board repair and parts installation, and micro-electronic connector pin soldering techniques; also includes replacement of components on microminiature single and double sided printed circuit boards and preventive maintenance procedures for the repair station and associated components.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics technology (11/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology (11/77).

NV-1715-0816

Prospective Electronics Material Officer—Pacific Fleet, Class C2

Course Number: A-4B-0018.

Location: Service School Command, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 9/77–Present.

Objectives: To provide the knowledge and skills necessary to administer and supervise the electronics maintenance division on board a Pacific fleet ship.

Instruction: Course includes audio-tutorial instruction in electronics materials management; communications systems, radar systems, navigation aids, electronic warfare, safety, training programs, and test equipment management.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (10/77).

NV-1715-0817

DD-963 Class Electronic Warfare Suite
(Countermeasures Receiving Set AN/WLR-1C (IV) Class F-1)

Course Number: A-102-0203.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 8–9 weeks (320–360 hours).

Exhibit Dates: 12/76–Present.

Objectives: Provides electronic warfare team training and technical maintenance in electronic support measures systems for the Spruance class destroyer.

Instruction: Provides training in operations under simulated conditions; alignment, repair and preventive maintenance of the AN/WLR-1C (V) with Band 10 and AN/WLR-11A.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronic maintenance (1/77).

NV-1715-0818

Cryptologic Technician M, Basic Bullseye Maintenance
(Bullseye System Basic Maintenance)

Course Number: A-102-0151.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 8 weeks (308–320 hours).

Exhibit Dates: 11/74–Present.

Objectives: To teach personnel with the cryptologic technician M rating to perform basic electronic maintenance on the Bullseye high-frequency, direction-finding (HFDF) system.

Instruction: Includes instruction and practical application on the Bullseye system and equipment block diagrams of the various subsystems. Preventive maintenance and minor corrective maintenance procedures applicable to the OPEG, AN/FRD-10, AN/FLR-11, AN/FRA-54, and the AN/FRQ-15 are also taught.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications electronics (1/77).

NV-1715-0819

Cryptologic Technician M, Bullseye Narrowband Maintenance
(Bullseye Narrowband Maintenance Technician)

Course Number: A-102-0152.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 28 weeks (1120 hours).

Exhibit Dates: 8/74–Present.

Objectives: To provide personnel with the cryptologic technician M rating with sufficient training to perform electronic maintenance on the Bullseye Narrowband system.

Instruction: Subjects covered include principles, history, and evaluation of high-frequency direction finding; antenna types and construction; electromechanical, electrical, and electronic theory; principles of operation; preventive and corrective maintenance procedures and techniques on the high-frequency, direction-finding equipment; proper use of test equipment to evaluate high-frequency, direction-finding antenna systems.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic troubleshooting procedures (1/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to computer science, 3 in computer technician training (1/77).

NV-1715-0820

Reserve Cryptologic Technician—Intermediate Cryptanalysis
(Reserve Naval Security Group-13.1 Intermediate Cryptanalysis)

Course Number: A-232-0056.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/77–Present.

Objectives: To provide working knowledge of the cryptanalytic techniques and practical experience in solving transposition ciphers and polygraphic substitution systems employing large tables and small matrices, including four-square, two-square, and Playfair cipher systems, and cryptosystems employing irregular cipher-text units.

Instruction: Instruction consists of a brief review of cryptographic terminology and techniques used in the solution of unilateral and multilateral substitution systems, including transposition ciphers and various polygraphic substitution systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0821

Reserve Cryptologic Technician Processing and Reporting, Phase I
(Processing and Reporting)
(Reserve Naval Security Group-3)

Course Number: A-232-0050.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/77–Present.

Objectives: To provide an introduction to basic traffic analysis.

Instruction: Course includes the construction of communications net diagrams by analysis of call signs and message externals of intercepted traffic.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0822

Reserve Cryptologic Technician Processing and Reporting, Phase II
(Processing and Reporting)
(Reserve Naval Security Group-4)

Course Number: A-232-0054.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/77–Present.

Objectives: To gain knowledge of the report writing phase of processing and reporting operations and to gain practical experience in the preparation of the special intelligence product and technical reports.

Instruction: Student will obtain practical experience in assembling and correlating special intelligence materials; in fusing collateral; in writing special intelligence product reports; in selecting the proper vehicle for electrical reporting and preparing it for transmission; and in preparing special intelligence product and technical reports in required machinable manipulative formats.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0823

Reserve Cryptologic Technician Naval Security Group Orientation
(Reserve Naval Security Group-1)

Course Number: A-230-0015.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/77–Present.

Objectives: To familiarize the student with the organization, mission, and functions of the Naval security group and other cryptologic agencies engaged in the national intelligence effort.

Instruction: Course introduces the student to all phases of Naval security group operations including Morse, non-Morse, radiotelephone, communications security, electronic intelligence (ELINT), processing and reporting, special identification techniques, research and development, general service and Naval security group special communication, communications security material system, Armed Forces courier service, and an introduction to elementary applications of cryptanalysis and traffic analysis.

Credit Recommendation: Crecit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0824

Reserve Cryptologic Technician, Basic Cryptanalysis
(Reserve Naval Security Group-13)

Course Number: A-232-0055.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/77–Present.

Objectives: To provide the student with a basic knowledge of cryptographic terminology, cryptanalysis techniques, and experience in solving unilateral substitution systems employing standard and mixed alphabets, multilateral substitution with single equivalent alphabets, and multilateral substitution with variants.

Instruction: Instruction covers cryptanalytic terminology and definition, basic statistical analysis, unilateral and multilateral substitution ciphers, and key and keyword recovery.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0825

Reserve Cryptologic Technician Simulated Operational Training Phase I
(Reserve Naval Security Group Simulated Operational Training Phase I)

Course Number: A-232-0051.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/77–Present.

Objectives: To provide team training in collection, cryptanalysis, traffic analysis, reporting and forwarding of intercept materials.

Instruction: Simulates operations performed by a small Naval security detachment. Using analytic techniques, the group studies complex encrypted rotating call signs and frequency rotas to determine organization and composition (order-of-battle) of the enemy. Under supervision, students copy simulated enemy traffic, perform basic traffic analysis and cryptanalysis, and prepare special intelligence reports for electrical forwarding.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0826

RESERVE CRYPTOLOGIC TECHNICIAN SIMULATED OPERATIONAL TRAINING PHASE II

(Reserve Naval Security Group Simulated Operations Training Phase II)

Course Number: A-232-0057.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/77-Present.
Objectives: To provide advanced training in collection, direction finding, cryptanalysis, traffic analysis, reporting and forwarding of intercept materials.
Instruction: Simulates operations performed by a small Naval security group division afloat by applying various cryptanalysis and traffic analysis techniques to simulated enemy intercept. Complex problems, including encrypted rotating call signs and frequencies are analyzed to determine the location, organization, and composition (order-of-battle) of the enemy. Students copy simulated enemy chatter and traffic, sort and log intercept, perform cryptanalysis and traffic analysis and prepare daily special intelligence summaries and technical reports for electrical forwarding.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0827

RESERVE CRYPTOLOGIC TECHNICIAN SIMULATED OPERATIONAL TRAINING PHASE III

(Reserve Naval Security Group Simulated Operations Training Phase III)

Course Number: A-232-0052.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/77-Present.
Objectives: To provide a realistic operational environment for advanced training in traffic analysis including reporting and forwarding of intercept materials.
Instruction: Course simulates the operation of a small Naval security group division afloat, located off the coast of a hypothetical country. During theoretical crisis, students are responsible for quick and accurate special intelligence responses. Problems generated include advanced traffic analysis of call sign and frequency rotas; order-of-battle, high frequency direction-finding and address system reconstruction. Special intelligence summaries are prepared and forwarded electrically.
Credit Recommendation: Credit is not recommended because of the military-specific nature of of the course (1/77).

NV-1715-0828

CRYPTOLOGIC TECHNICIAN M, FLEXSCOP MAINTENANCE, CLASS C3

Course Number: A-102-0079.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 24 weeks (948-960 hours).
Exhibit Dates: 2/75-Present.
Objectives: To teach performance of preventive and corrective maintenance on the CP-818 computer, Flexscop systems, and the TT-617/G line printer.
Instruction: In-depth coverage of programming logic diagram analysis and maintenance procedures for the CP-818A computer and associated I/O devices. Includes safety precautions and procedures.
Credit Recommendation: In the vocational certificate category, 6 semester hours in troubleshooting computer systems and subsystems (1/77); in the lower-division baccalaureate/associate degree category, 4 semester hours in applied computer systems (1/77).

NV-1715-0829

CRYPTOLOGIC TECHNICIAN M, CLASS A3

(Cryptologic Technician Maintenance)

Course Number: A-102-0109.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: Self-paced 12 weeks (480 hours).
Exhibit Dates: *Version 1:* 2/77-Present. *Version 2:* 8/74-1/77.
Objectives: To teach basic electronic maintenance of equipment used in conjunction with cryptologic mission.
Instruction: Emphasis is on equipment configurations and procedures used in Naval security group activities. Included are basic safeguards for security; use of maintenance documentation; safety precautions and practices; principles of operation and maintenance of antenna and RF distribution systems, radio receivers, and tape recorders; principles of TTY and communication terminal equipments; and use of common and special purpose test equipment.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in electronic test equipment (1/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital systems fundamentals (1/77). *Version 2:* In the vocational certificate category, 3 semester hours in electronic test equipment (1/77).

NV-1715-0830

CRYPTOLOGIC TECHNICIAN M, BULLSEYE WIDEBAND MAINTENANCE

(Bullseye Wideband Maintenance Technician, Class 3)

Course Number: A-102-0153.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 28 weeks (1108-1120 hours).
Exhibit Dates: 12/74-Present.
Objectives: To teach personnel with cryptologic technician M rating to perform electronic maintenance on the Bullseye Wideband system.
Instruction: Teaches preventive and corrective maintenance on the AN/FLR-11 and AN/FRA-54 equipment and associated systems.
Credit Recommendation: In the vocational certificate category, 9 semester hours in communication electronics or computer systems (1/77); in the lower-division baccalaureate/associate degree category, credit is recommended in communication electronics or for a basic course in computer science on the basis of institutional evaluation (1/77).

NV-1715-0831

AVIATION SQUADRON ELECTRONIC WARFARE (EW) OFFICER (EWO), CLASS A2

Course Number: C-2D-3814.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 4 weeks (148-160 hours).
Exhibit Dates: 1/77-Present.
Objectives: To provide formal training for the aviation officer assigned to an electronic warfare officer billet in a tactical air/antisubmarine warfare squadron.
Instruction: Topics include technology, organization, equipment, publications, weapons systems, training, and operations. Subjects include correspondence writing, equipment operation, training development, and operational planning.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0832

NAVAL SECURITY GROUP DIRECT SUPPORT OPERATIONS

(Officer Direct Support Operations, Class C4)

Course Number: A-3B-0012.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: Self-paced 4 weeks (148-160 hours).
Exhibit Dates: 1/77-Present.
Objectives: To train junior officers for assignment to a Naval security direct support unit.
Instruction: Course provides training in the mission, task, and functions of the direct support unit; includes operational objectives and operational and management reports.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0833

CRYPTOLOGIC TECHNICIAN R HIGH FREQUENCY DIRECTION FINDER (HFDF) OPERATOR

(High Frequency Direction Finder Operator, Class C3)

Course Number: A-231-0012.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: Self-paced 5 weeks (188-200 hours).
Exhibit Dates: 1/77-Present.
Objectives: To provide background, theory, and knowledge of procedures necessary to operate direction-finding equipment in current use.
Instruction: Subjects include history and theory of direct finding; review of mathematics and basic radio theory; review of security practices and principles; calibration and operation of equipment and systems; charts, plotting, and fixes; communications practices and procedures; and simulated watchstanding.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0834

RESERVE CRYPTOLOGIC TECHNICIAN DIRECT SUPPORT

(Reserve Training Officer Direct Support Operations, Class F1)

Course Number: A-230-0016.
Location: Naval Technical Training Center, Corry Station, Pensacola, FL.
Length: 2 weeks (80 hours).
Exhibit Dates: 1/77-Present.
Objectives: To learn about Naval security group elements afloat and to enable students to perform in responsible, often independent positions.
Instruction: Student is trained to assume duties as Officer in Charge or Leading Petty Officer of a Naval security group afloat: emphasis is placed on independent

operations. Tactical and operational control methods are explained and proper use of governing directives is stressed.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/77).

NV-1715-0835

Cryptologic Technician M AN/FLR-15 Maintenance, Class C3

Course Number: A-102-0084.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 36 weeks (1428–1440 hours).

Exhibit Dates: 11/75–Present.

Objectives: To teach preventive and corrective maintenance on the AN/FLR-15 equipment.

Instruction: Subjects include electromechanical, electrical, and electronic theory; principles of operation; preventive and corrective maintenance procedures and techniques on the AN/FLR-15, OL-125 and associated test equipment.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in basic digital circuits and 3 in PDP 11/35 Computer Technician training (1/77).

NV-1715-0836

Cryptologic Technician R, Class A3
(Cryptologic Technician Collection Branch)

Course Number: A-231-0044.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 22 weeks (880 hours).

Exhibit Dates: 11/73–Present.

Objectives: To provide basic instruction and practical application in intercept of Morse communications.

Instruction: Includes operation of radio receiving equipment and typewriters; basic safeguards of security; communication procedures and systems; theory and operation of communication equipment. Provides basic instruction and practical application in intercept of Morse communications and develops ability to copy Morse code at a speed of 18 GPM and touch type at 25 WPM.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics or general technical subjects (9/77).

NV-1715-0837

Cryptologic Technician T, Class A3 Preparatory
(Cryptologic Technician Technical Basic Preparatory, Class A)

Course Number: A-231-0045.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 13 weeks (508–520 hours).

Exhibit Dates: 5/75–Present.

Objectives: To provide instruction and practical experience in intercept of non-Morse communications.

Instruction: Course includes fundamental concepts of communications and techniques required to perform intercept of selected non-Morse signals. Students study International Morse code and learn to transcribe 8 GPM using Morse Code Trainer and 15 GPM using paper and pen. Touch typing at 25 WPM is required.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications (1/77).

NV-1715-0838

Cryptologic Technician T, Field Operations Type One, Class A3, Special Non-Morse
(Cryptologic Technician Technical Field Operations, Type One)

Course Number: A-231-0046.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 5 weeks (200 hours).

Exhibit Dates: 1/77–Present.

Objectives: To provide instruction and training in intercept of non-Morse communications.

Instruction: Includes concepts of collection analysis reporting and forwarding on non-Morse (plain text and enciphered) communications signals and the operation of the AN/GSQ-76 data acquisition system (TEBO) and associated equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (1/77).

NV-1715-0839

Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse
(Cryptologic Technician Technical Field Operations, Type Two)

Course Number: A-231-0047.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 3 weeks (108–120 hours).

Exhibit Dates: 5/76–Present.

Objectives: To provide instruction and practical experience in intercept of non-Morse communications.

Instruction: Includes basic concepts in International Commercial Radio collection, analysis, reporting, and forwarding of ICR non-Morse communications signals and instruction in the operation of the AN/TCA-4 (KINDER) digital converting programming group and associated equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in radio operation (1/77).

NV-1715-0840

Cryptologic Technician T, Field Operations Type Three, Class A3, AN/FLR-11/15 Operations
(Cryptologic Technician Technical Field Operations Type Three)

Course Number: A-231-0024.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 6 weeks (228–240 hours).

Exhibit Dates: 5/76–Present.

Objectives: To provide training to operate all components of the AN/FLR-11 and AN/FLR-15.

Instruction: Topics include theory and knowledge of procedures necessary to operate all components of the AN/FLR-11 and AN/FLR-15; operating and basic adjustments; equipment demonstrations; practical application; and simulated watchstanding.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications equipment (1/77).

NV-1715-0841

Countermeasures Receiving Set AN/WLR-11A
(AN/WLR-11A Maintenance Training, Class C-1)

Course Number: A-102-0150.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 5 weeks (188–200 hours).

Exhibit Dates: 7/75–Present.

Objectives: To provide technical training in the maintenance of the AN/WLR-11A and associated equipment in a shipboard environment with minimum supervision.

Instruction: Subjects include digital logic review, alignment, repair, and preventive maintenance of the AN/WLR-11A and interface with AN/WLR-1.

Credit Recommendation: In the vocational certificate category, 3 semester hours electronic communications equipment (1/77).

NV-1715-0842

AN/SLQ-19 and AN/SLQ-26(V) with AN/SLD-1 Countermeasures Set Maintenance
(Countermeasures Set AN/SLQ-26, Class C-1)

Course Number: A-102-0192.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 10 weeks (400 hours).

Exhibit Dates: 7/74–Present.

Objectives: To prepare personnel to operate, maintain, and repair the AN/SLQ-19 and AN/SLQ-26(V) systems.

Instruction: Topics include digital logic review, alignment, repair, and preventive maintenance of the AN/SLQ-19 and AN/SLQ-26(V) systems, including the AN/SLD-1A.

Credit Recommendation: In the vocational certificate category, 6 semester hours in communications electronics (1/77).

NV-1715-0843

Cryptologic Technician T, Flexscop Operator
(Flexscop Operator, Class C3)

Course Number: A-231-0025.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 4–6 weeks (160–240 hours).

Exhibit Dates: 11/74–Present.

Objectives: To provide technical skills necessary to operate the CP-818 data computer and ancillary equipment associated with the Flexscop system.

Instruction: Includes introduction to and operating procedures for the digital data computer CP-818 and ancillary equipment. Air Force personnel attend additional 2 weeks for simulated watchstanding that parallels on-site operations.

Credit Recommendation: In the vocational certificate category, 2 semester hours in introduction to computer systems and operation (1/77); in the lower-division baccalaureate/associate degree category, credit in introduction to computer science on the basis of institutional evaluation (1/77).

NV-1715-0844

Reserve Cryptologic Technician T, Advanced, Class F1
(Reserve Naval Security Group-10-T)
(Advanced T Branch Training Orientation)

Course Number: A-231-0041.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/73–Present.

Objectives: To provide basic and update branch training beyond the Naval Security group division level training.

Instruction: Course provides current professional, practical, and knowledge factor requirements in communications equipment operation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in communications equipment operation (1/77).

NV-1715-0845

Reserve Cryptologic Technician
Signal Analysis, Class F1
(Reserve Naval Security Group-5 Signal Analysis)

Course Number: A-232-0049.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: Students learn about various types of communication signals currently in use throughout the world.

Instruction: Introduction to modulation; training in graphic analysis; fundamental use of the sonagraph and undulator recorder; step-by-step breakdown of all non-Morse transmissions, beginning with basic transmissions and progressing to complex signals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronic communications (1/77).

NV-1715-0846

Cryptologic Technician T, Flexscop
Programmer, Class C3

Course Number: A-532-0016.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 19 weeks (760 hours).

Exhibit Dates: 3/74–Present.

Objectives: To teach skills necessary to perform systems analyst/programmer functions using the C-818/U computer and the Flexscop system.

Instruction: Subjects include program writing, assembling systems/programs, and troubleshooting faulty programs/systems, and instruction related to on-site programming applications.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer operation (1/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in computer science assembly language (1/77).

NV-1715-0848

Reserve Cryptologic Technician
Communications Technical
Control, Class F1
(Reserve Naval Security Group-7 Communications Technical Control)

Course Number: A-580-0026.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 1/74–Present.

Objectives: To teach basic communications technical control.

Instruction: Topics include basic technical control operation/administrative procedures, telegraph signal characteristics and printing systems, signal distortion, safety, DC patching, telegraph test equipment, control reporting, cryptographic equipment and setup/operation procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in teletype equipment (1/77).

NV-1715-0849

Cryptologic Technician O, Tactical
Communications Systems
Operations and Management,
Class C3

Course Number: A-580-0020.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 12 weeks (480 hours).

Exhibit Dates: 3/75–Present.

Objectives: To provide training in tactical communications systems operation and management.

Instruction: Subjects include basic theory of electricity; operating principles of transmitters, receivers, transmission lines and multicouplers; circuit control and traffic reporting procedures; shipboard communications; high frequency direction-finding (HFDF) operations and communications; and communications management.

Credit Recommendation: In the vocational certificate category, 3 semester hours in basic electricity and 6 in radio communication and communicator (1/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in management procedures (1/77).

NV-1715-0850

Cryptologic Technician O, Class A3
(Cryptologic Technician Communications Rating, Class A)

Course Number: A-580-0016.

Location: Naval Technical Training Center, Corry Station, Pensacola, FL.

Length: Self-paced 17 weeks (668-680 hours).

Exhibit Dates: 10/75–Present.

Objectives: Provides instruction in basic radio printer communications.

Instruction: Includes cryptographic equipment operating techniques; developing teletypewriter operator skills; Naval message format preparation; the tape relay procedure method of message delivery; communications security, organization, systems, logs, and files.

Credit Recommendation: In the vocational certificate category, 3 semester hours in teletype usage (1/77).

NV-1715-0851

Electronics Technician A,
Communications
(Electronics Technician Communications Basic, Class A1)

Course Number: A-102-0227.

Location: Service School Command, Great Lakes, IL.

Length: 17 weeks (619 hours).

Exhibit Dates: 10/77–Present.

Objectives: To provide knowledge and skills in electronics fundamentals and electronic circuit analysis.

Instruction: Subjects include basic electronics technology, troubleshooting procedures, use of basic electronics test equipment and common hand tools, and introduction to communications fundamentals.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 6 in radar principles, 2 in electronics laboratory (10/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 3 in radar systems (10/77).

NV-1715-0852

Electronics Technician
Communications Equipment
Fundamentals, Class A1

Course Number: A-102-0228.

Location: Service School Command, Great Lakes, IL.

Length: 13 weeks (422 hours).

Exhibit Dates: 10/77–Present.

Objectives: To develop troubleshooting skills using generic communications systems.

Instruction: Course includes principles of operation, 3M documentation, corrective and preventive maintenance techniques for generic communications systems (AN/WRC-1, R-1051, AN/URC-35, AN/URT-23, AN/URA-38, AN/SRC-20/21, AN/UCC-1, Teletype System).

Credit Recommendation: In the vocational certificate category, 7 semester hours in communications equipment (10/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in communications laboratory (10/77).

NV-1715-0853

Electronics Technician
Communications—Nuclear Field,
Class A1

Course Number: A-102-0226.

Location: Service School Command, Great Lakes, IL.

Length: 22 weeks (791 hours).

Exhibit Dates: 10/77–Present.

Objectives: To provide nuclear field electronics technicians with a basic knowledge of electronics fundamentals and develop troubleshooting skills using generic communications equipment.

Instruction: Topics include basic electronics technology, troubleshooting procedures, basic electronics test equipment and common hand tools, introduction to communications, principles of operation, 3M documentation, corrective and preventive maintenance techniques for generic communications equipment AN/WRC-1, R-1051, AN/URC-35, AN/URT-23, and AN/URA-38.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 6 in radar systems, 4 in communications equipment, and 2 in electronics laboratory (10/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity or electronics, 3 in radar systems, and 1 in communications laboratory (10/77).

NV-1715-0854

Electronics Technician Radar Basic
(Electronics Technician Radar, Class A1)

Course Number: A-104-0173.

Location: Service School Command, Great Lakes, IL.

Length: 17 weeks (619 hours).

Exhibit Dates: 10/77–Present.

Objectives: To provide knowledge and skills in electronic fundamentals and circuit analysis.

Instruction: Topics include electronic technology, troubleshooting procedures, use of basic electronics test equipment and common hand tools, and introduction to radar fundamentals.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 6 in radar systems, 2 in electronics laboratory (10/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 3 in radar systems (10/77).

NV-1715-0855

Electronics Technician Radar Equipment Fundamentals, Class A1

Course Number: A-104-0174.
Location: Service School Command, Great Lakes, IL.
Length: 12 weeks (400 hours).
Exhibit Dates: 10/77–Present.
Objectives: To develop troubleshooting skills using generic radar systems.
Instruction: Course includes principles of operation; 3M documentation; corrective and preventive maintenance techniques for generic radar systems AN/SPS-10, Mk X IFF, AN/SPA-25; electronic liquid cooling and dry air systems.
Credit Recommendation: In the vocational certificate category, 2 semester hours in radar electronics, 3 in electronics laboratory (10/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronics laboratory (10/77).

NV-1715-0856

Electronics Technician Radar—Nuclear Field, Class A1

Course Number: A-104-0172.
Location: Service School Command, Great Lakes, IL.
Length: 21 weeks (729 hours).
Exhibit Dates: 10/77–Present.
Objectives: To provide nuclear field electronics technicians with a basic knowledge of electronics fundamentals and to develop troubleshooting skills using generic radar equipment.
Instruction: Subjects are basic electronic technology and troubleshooting procedures including use of basic electronics test equipment and common hand tools; introduction to radar; principles of operation; 3M documentation; corrective and preventive maintenance techniques for generic radar equipment AN/SPS-10; electronics liquid cooling and dry air systems.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 2 in electronics laboratory, 6 in radar systems and 2 in radar electronics (10/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electricity and electronics, 3 in radar systems (10/77).

NV-1715-0857

Sonar AN/SQS-23 Operator
(Sonar AN/SQS-23 Series (Sonar) Operator Basic)

Course Number: A-130-0084.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 3 weeks (94 hours).
Exhibit Dates: 7/77–Present.
Objectives: To train personnel in the operation of AN/SQS-23 sonar systems.
Instruction: Lectures and practical exercises in the operation of AN/SQS-23 sonar sets and associated equipment.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/77).

NV-1715-0858

Sonar AN/SQS-35(IVDS) Operator
(Sonar AN/SQS-35(V) AN/SQS-38 Operator Basic)

Course Number: A-130-0085.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 2 weeks (63 hours).
Exhibit Dates: 5/75–Present.
Objectives: Course trains Naval and Coast Guard personnel to operate the AN/SQS-35/38 sonar.
Instruction: Course contains topics pertinent only to the specified sonar.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/77).

NV-1715-0859

Sonar AN/SQQ-23A (PAIR) Organizational Maintenance

Course Number: A-130-0096.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 25 weeks (744 hours).
Exhibit Dates: 5/76–Present.
Objectives: To train selected enlisted personnel to operate and maintain the AN/SQQ-23A sonar system.
Instruction: Classroom and laboratory experiences related to the operation and maintenance of the sonar AN/SQQ-23A. Includes circuit analysis and troubleshooting, system turn on and troubleshooting, receiver subsystems analysis and troubleshooting, solid state transmitters, and recorder/reproducer.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0860

Sonar AN/SQQ-23 (PAIR) Operator Basic

Course Number: A-130-0097.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA; Fleet Mine Warfare Training Center, Charleston, SC.
Length: 8 weeks (239 hours).
Exhibit Dates: 8/77–Present.
Objectives: To train selected personnel with sonar technician "G" rating to operate the AN/SQQ-23 PAIR sonar and to perform operator preventive maintenance.
Instruction: Classroom instruction and laboratory practice activities related to basic operation and preventive maintenance of the sonar AN/SQQ-23.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/77).

NV-1715-0861

Sonar AN/SQS-53 Operator Basic

Course Number: A-130-0103.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 4 weeks (116 hours).
Exhibit Dates: 8/76–Present.
Objectives: To prepare personnel to operate the AN/SQS-53 sonar system.
Instruction: Course content concerns the operation of the specified sonar system.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the training (8/77).

NV-1715-0862

Sonar AN/SQR-17 Organizational Maintenance
(Sonar AN/SQR-17 and AN/SKR-4 Organizational Maintenance)

Course Number: A-130-0110.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 11 weeks (352 hours).
Exhibit Dates: 4/76–Present.
Objectives: To provide surface sonar technicians with skills and knowledge to maintain the sonar signal processing set AN/SQR-17 and telemetric data receiving set AN/SKR-4A.
Instruction: Classroom and laboratory experiences in theory and applications of maintenance procedures and techniques unique to the sonar AN/SQR-17. Also includes basic integrated circuit nomenclature and spectrum analyzer operation and maintenance.
Credit Recommendation: In the vocational certificate category, 1 semester hour in advanced instrumentation (8/77).

NV-1715-0863

Sonar AN/SQS-26 BX Maintenance

Course Number: A-130-0046.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 20 weeks (625 hours).
Exhibit Dates: 12/76–Present.
Objectives: Course prepares personnel with Sonar Technician "G" rating to maintain the sonar AN/SQS-26BX system.
Instruction: Topics such as servo control logic, transmitter testing, signal processing, and fault isolation of the specified sonar system.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electronic troubleshooting (8/77).

NV-1715-0864

Sonar AN/SQS-23 D–G Series (TRAM) Maintenance
(Sonar AN/SQS-23 D–G Series TRAM, MIP, LORA Maintenance)

Course Number: A-130-0049.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 12 weeks (375 hours).
Exhibit Dates: 8/76–Present.
Objectives: To train sonar technicians in the maintenance of the AN/SQS-23 sonar system.
Instruction: Lectures and practical exercises in preventive and corrective maintenance of sonar and associated support equipment. Includes heater and DC power supplies, transmission circuits, transmitting cooling systems, performance monitor equipment, system test circuits, presentation and receiving circuits, and related topics.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0865

Sonar AN/BQS-11/12/13 Maintenance
(Submarine Sonar AN/BQS-11/12/13 System Maintenance)
(Sonar Detecting Ranging Set AN/BQS-11/12/13 Combined Maintenance)

Course Number: A-130-0065.
Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.
Length: 10 weeks (400 hours).
Exhibit Dates: 5/74–Present.

Objectives: To train sonar technicians in the preventive and corrective maintenance of the AN/BQS-11/12/13 sonar systems.

Instruction: Lectures and practical exercises in preventive and corrective maintenance of AN/BQS-11/12/13 sonar systems with emphasis on troubleshooting techniques.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0866

SONAR AN/SQS-35(V) MAINTENANCE

Course Number: A-130-0069.

Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 13 weeks (520 hours).

Exhibit Dates: 1/76–Present.

Objectives: To train sonar technicians to maintain, calibrate, and operate the AN/SQS-35(V) sonar and associated equipment.

Instruction: Lectures and practical exercises in the operation and maintenance of the AN/SQS-35(V) sonar systems and associated timing, transmitter, receiver, and servo equipments.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronic troubleshooting (8/77).

NV-1715-0867

SONAR ELECTRONICS INTERMEDIATE (SEI)

Course Number: A-130-0039.

Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 17 weeks (680 hours).

Exhibit Dates: 8/74–Present.

Objectives: To provide enlisted personnel with a basic working knowledge of electric circuits, electronics, and computer logic circuits.

Instruction: Topics include basic electricity and electronics, DC and AC theory, vacuum tubes, solid state devices, transformer operation, power supplies, amplifiers, wave form generators, analog computer circuits, digital numbering, "and" "or" gates and flip-flop switching, memory devices, and biasing techniques.

Credit Recommendation: In the vocational certificate category, 6 semester hours in electricity and electronics, 3 in computer logic circuits (8/77); in the lower-division baccalaureate/associate degree category, 6 semester hours in electricity and electronics, 3 in computer logic circuits (8/77).

NV-1715-0868

SONAR DETECTING/RANGING SET AN/BQS-8/10/14/20 COMBINED MAINTENANCE

(AN/BQS-8B, 10A, 14A Sonar System Maintenance)

Course Number: A-130-0036.

Location: Fleet Antisubmarine Warfare Training Center, San Diego, CA.

Length: 3 weeks (60–90 hours).

Exhibit Dates: 1/76–Present.

Objectives: Student learns to operate the AN/BQS-8B/10A, 14A and 20 and detect malfunctions.

Instruction: Topics pertain specifically to sonar system equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (8/77).

NV-1715-0869

DD-963 FACILITIES CONTROL QUALITY MONITORING PROCESSING UNIT OPERATORS

(DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1)

Course Number: A-201-0021.

Location: Service School Command, San Diego, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 7/77–Present.

Objectives: To provide the skills and knowledge necessary to operate a radio communications system.

Instruction: Course provides instruction in the operation of quality monitoring and control systems, high frequency radio equipment, and message processing equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications systems (11/77).

NV-1715-0870

RADIO COMMUNICATIONS SYSTEM MAINTENANCE FOR DD963 CLASS SHIPS, CLASS C-1

Course Number: A-101-0096.

Location: Service School Command, San Diego, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 11/77–Present.

Objectives: To train electronic technicians to operate, align, and repair a radio communications system for Naval vessels.

Instruction: Lectures and laboratories in circuit analysis and block diagrams of receivers and transmitters; logic systems; synthesizers; RF and control sections; power supplies and antennas; and use of test equipment to troubleshoot and repair the specified equipment.

Credit Recommendation: In the vocational certificate category, 3 semester hours in communications systems, 2 in electronics laboratory (11/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in communications systems (11/77).

NV-1715-0871

SUBMARINE SATELLITE INFORMATION EXCHANGE SYSTEM (SSIXS) OPERATIONAL CONTROL CENTER MAINTENANCE

Course Number: A-101-0081.

Location: Service School Command, San Diego, CA.

Length: 10 weeks (300 hours).

Exhibit Dates: 9/75–Present.

Objectives: To provide the skills and knowledge necessary to operate and maintain a satellite information exchange system operational control center.

Instruction: Students attend ten separate courses in sequence. Units of instruction include the operation and maintenance of the TT-624 line printer, RD-397/U (XN-1) signal data recorder-reproducer, ON-143 (V3)/USQ interconnecting group, AN/USH-22(V) magnetic tape subsystem, and the AN/USH-23(V) magnetic disk subsystem.

Credit Recommendation: In the vocational certificate category, 3 semester hours in computer peripherals maintenance and 1 in troubleshooting techniques (11/77).

NV-1715-0872

COMMON USER DIGITAL INFORMATION EXCHANGE SYSTEM (CUDIXS) MAINTENANCE

Course Number: A-101-0082.

Location: Service School Command, San Diego, CA.

Length: 19 weeks (570 hours).

Exhibit Dates: 11/75–Present.

Objectives: To provide the skills and knowledge to operate and maintain the common user information exchange system.

Instruction: Students attend ten separate courses in sequence. Units of instruction include the operation and maintenance of the TT-624 line printer, RD-397/U (XN-1) signal data recorder-reproducer, ON-143(V3)/USQ interconnecting group, AN/USH-22(V) magnetic tape subsystem, AN/USH-23(V) magnetic disk subsystem, AN/UYK-20 data processing set, and associated communications systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in communications systems, 3 in computer peripherals maintenance, and 1 in troubleshooting techniques (11/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer systems (11/77).

NV-1715-0873

SUBMARINE SATELLITE INFORMATION EXCHANGE SYSTEM (SSIXS) FOR SHIPBOARD INSTALLATIONS MAINTENANCE

Course Number: A-101-0083.

Location: Service School Command, San Diego, CA; Submarine School, New London, CT.

Length: 16 weeks (480 hours).

Exhibit Dates: 9/75–Present.

Objectives: To provide the skills and knowledge necessary to maintain a satellite information exchange system.

Instruction: Students attend seven separate courses in sequence. Units of instruction include the operation and maintenance of the AN/WSC-3 satellite communications set, AN/UYK-20 data processing set, ON-143(V3)/USQ interconnecting group, and associated communications systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics technician training, 3 in computer peripherals maintenance, and 1 in troubleshooting techniques (11/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer systems (11/77).

NV-1715-0874

FLEET SATELLITE COMMUNICATIONS FLEET BROADCAST CONTROL SUBSYSTEM MAINTENANCE (ELECTRONICS TECHNICIAN, CLASS C1)

Course Number: A-101-0085; A-101-0086.

Location: Service School Command, San Diego, CA.

Length: 2 weeks (65 hours).

Exhibit Dates: 1/77–Present.

Objectives: To provide skills and knowledge in operation and maintenance without supervision of a time division multiplexer and satellite signal receiving set.

Instruction: Theoretical and practical instruction in the operation, troubleshooting, and preventive maintenance of a radio receiver and a time division multiplexer to the card/module level of operation.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics laboratory (11/77).

NV-1715-0875

Naval Modular Automated Communications System (NAVMACS) A Maintenance

Course Number: A-101-0089.
Location: Service School Command, San Diego, CA.
Length: 20 weeks (600 hours).
Exhibit Dates: 9/75–Present.
Objectives: To provide the skills and knowledge necessary to operate and maintain a modular automated communications system.
Instruction: Students attend ten separate courses in sequence. Units of instruction include digital computers TT-624 line printer, AN/WSC communications equipment, and various troubleshooting and maintenance laboratories.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics technician training and 1 in troubleshooting techniques (11/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in digital computer systems (11/77).

NV-1715-0876

ANWSC-3 Stand-Alone Maintenance
(AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group)

Course Number: A-101-0138.
Location: Service School Command, San Diego, CA; Fleet Training Center, Norfolk, VA.
Length: 3 weeks (90 hours).
Exhibit Dates: 6/77–Present.
Objectives: To provide the skills and knowledge required to operate and maintain a satellite communications set and related antenna equipment.
Instruction: Theoretical and practical instruction in equipment operation, troubleshooting, and preventive maintenance of a satellite communications set.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics technician training (11/77).

NV-1715-0877

AN/WSC-5 Tactical Satellite Communications System Maintenance
(Tactical Satellite Communications Equipment Maintenance AN/WSC-5(V))

Course Number: A-102-0126.
Location: Service School Command, San Diego, CA.
Length: 7 weeks (210 hours).
Exhibit Dates: 11/77–Present.
Objectives: To provide the skills and knowledge for the maintenance of the AN/WSC-5(V) tactical satellite communications equipment.
Instruction: Lessons and demonstrations of the theory of operation and use of the AN/WSC-5(V) tactical satellite communications system; a comprehensive analysis of all units of the system; diagnostic troubleshooting techniques for the repair and calibration of the system; the use of specialized test equipment and application of preventive maintenance procedures.
Credit Recommendation: In the vocational certificate category, 2 semester hours in communications systems and 3 in electronics laboratory (11/77).

NV-1715-0878

Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Operator

Course Number: A-202-0020.
Location: Service School Command, San Diego, CA.
Length: 2 weeks (60 hours).
Exhibit Dates: 11/77–Present.
Objectives: To train technicians as designated operators on the submarine satellite information exchange system operational control center shore message processing system.
Instruction: Lessons and instruction on the operation and use of the operational control center system; message modes, control console and retrieval from memory; monitoring of the system for sequential operational steps for proper operation.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (11/77).

NV-1715-0879

Common Users Digital Information Exchange System (CUDIXS) Operators

Course Number: A-202-0021.
Location: Service School Command, San Diego, CA.
Length: 2 weeks (60 hours).
Exhibit Dates: 4/76–Present.
Objectives: To provide the skills and knowledge necessary to operate the common users digital information exchange system.
Instruction: Units of instruction include operational procedures, system alarms, program loading, message handling, system status, system recovery, and link operation.
Credit Recommendation: In the vocational certificate category, 2 semester hours in communication systems (11/77).

NV-1715-0880

Missile Technician Polaris Conversion

Course Number: A-121-0461.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 12 weeks (360 hours).
Exhibit Dates: 1/76–Present.
Objectives: To teach the theory, operation, maintenance, and repair of a Polaris launching system.
Instruction: Course offers a study of the functional operation and schematic analysis of a missile fire control system, including control, logic, program timer, display, simulator, power supplies, launcher alignment, calibration, launcher troubleshooting, fault analysis, and repair. Course is a combination consisting of the following: Polaris A3 Missile Advanced Training (A-121-0261), Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer Timer Digital Multimeter Advanced Training (A-121-0262), Missile Test and Readiness Equipment Mk 3 Measurement, Display and Simulation Groups Advanced Training (A-121-0263), Guidance Power Supplies Mk 115/116 Advanced Training (A-121-0266), Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Operation/Interface and Mechanical Repair Advanced Training (A-121-0264) and either Mk 17 Mod 1 Launcher Advanced Training (A-121-0271) and Mk 17 Launcher Pneumatic (A-121-0273) or Mk 21 Mod 2 Launcher Advanced Training (A-121-0272) and Mk 21 Launcher Pneumatic (A-121-0274).
Credit Recommendation: In the vocational certificate category, 4 semester hours in electromechanics for completion of all components of the entire course (9/77); in the lower-division baccalaureate/associate degree category, 5 semester hours in electronic technology for completion of all components of the entire course (9/77).

NV-1715-0881

Navigation Technician SSN 668 Class

Course Number: A-193-0103.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 13 weeks (520 hours).
Exhibit Dates: 5/76–Present.
Objectives: To provide study of a navigational system consisting of a digital computer and satellite receiver, and to teach fault isolation and repair of the equipment, and to provide familiarization with system programs used to operate and diagnose the system.
Instruction: This is an initial course in the theory, operation, and maintenance of specified equipment, teaching basic inertial navigation theory, central computer complex subsystem theory and basic operation, system data flow, fault isolation, and the operational techniques of resets, calibration and error analysis. A combination course consisting of the following: Dual Mini Ships Inertial Navigation System (SINS) Maintenance (A-193-0103), Satellite Receiver AN/SRN-9A Combined Maintenance (A-102-0168), Omega Navigation Set AN/BRN-7 Combined Maintenance (A-102-0131), Inertial Navigation Principles (A-193-0050) and Central Computer Complex Duel Miniature (CCCDEMIN) Ships Inertial Navigation System (SINS) (A-115-0104).
Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics technology for completion of all components of the entire course (9/77).

NV-1715-0882

585/594 FBM Electronic Surveillance Measures (ESM) Technician

Course Number: A-233-0047.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 20 weeks (540 hours).
Exhibit Dates: 9/77–Present.
Objectives: A combined series of courses involving sophisticated electronic equipment aboard submarines.
Instruction: Course is a combination of the following: IFF AN/APX-72 and AN/UPX-17 Combined Maintenance (A-102-0229), Radar AN/BPS-12, 13, 14 Combined Maintenance (A-104-0165), ESM AN/WLR-1 F/3A Combined Maintenance (A-233-0034), Radio Direction Finder AN/BRD-6 Combined Maintenance (A-102-0159), and Periscope Type 8B and 15D E/E Adapter Combined Maintenance (A-233-0032).
Credit Recommendation: In the vocational certificate category, 6 semester hours in electromechanical technology for completion of all components of the course (9/77); in the lower-division baccalaureate/associate degree category, 3 semester hours in electronics engineering technology for completion of all components of the course (9/77).

NV-1715-0883

Electronic Surveillance Measures (ESM) Technician SSN 637 Class, Class C-1

Course Number: A-233-0044.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 22 weeks (660 hours).

Exhibit Dates: 12/72–Present.

Objectives: To provide non-nuclear submarine electronics technician personnel training in sophisticated electronic equipment aboard submarines.

Instruction: Course presents training in the operation and maintenance of specified electronic equipment and is a combination of the following courses: Electronic Surveillance Measures (ESM) AN/WLR-6 Combined Maintenance (A-233-0041), IFF AN/APX-72 and AN/UPX-17 Combined Maintenance (A-102-0229), Radar AN/BPS-12, 13, 14 Combined Maintenance (A-104-0165), and Periscope Type 15 B/D and E Adapter Combined Maintenance (A-233-0037).

Credit Recommendation: In the vocational certificate category, 12 semester hours in electronics technology for completion of all components of the entire course (9/77); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics engineering technology for completion of all components of the entire course (9/77).

NV-1715-0884

Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1

Course Number: A-121-0262.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 6/74–Present.

Objectives: To teach the theory of operation, adjustment, fault isolation, and repair of a special-purpose digital programmer and timer for military equipment using a specially designed digital multimeter.

Instruction: Course includes a study of the functional operation of a digital programmer and timer utilizing circuit logic and logic diagrams including control, program instructions, and sequential operations. Use of test equipment including a special purpose digital multimeter to isolate faults, make adjustments, calibrate, troubleshoot, and repair military equipment.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electronics technology (9/77).

NV-1715-0885

Submarine Communications Equipment Combined Maintenance

(Submarine Communications Equipment)
(Radio Equipment Submarine Maintenance)

Course Number: A-101-0061; A-101-0062.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 21 weeks (840 hours).

Exhibit Dates: 7/75–Present.

Objectives: Course is designed to train technicians to operate, maintain, and repair a submarine communications system.

Instruction: Lectures and practical exercises on a submarine communications system including various types of antennas, antenna couplers, receivers, and transmitter systems. Course covers block-diagram functional description of each subsection, signal tracing using schematics, preventive maintenance, alignment, adjustment, calibration, and troubleshooting to isolate the fault to the board or component level. Combination course consists of the following: Transceiver AN/SRC-20 Combined Maintenance (A-101-0103), Special Communications Equipment AN/BRT-2 Operator-Maintenance (A-101-0095), Antenna Multicoupler AN/BRA-16 Combined Maintenance (A-101-0104), Antenna Coupler CU-1441 Combined Maintenance (A-101-0107), Transmitter AN/WRT-4 Combined Maintenance (A-101-0106), Radio Transceiver AN/WRC-1 Family Equipment (A-101-0109), Antenna Group AN/BRA-8B Combined Maintenance (A-101-0098), Radio (Submarine) Receiver/Converter Combined Maintenance (A-101-0124) and Antenna Systems Fundamentals (Submarines) (A-101-0123).

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics communications for completion of all components of the entire course (9/77); in the lower-division baccalaureate/associate degree category, 1 semester hour in electronic engineering technology laboratory for completion of all components of the entire course (9/77).

NV-1715-0886

Interior Communications (IC) Package Course for SSN/SSBN

Course Number: A-623-0030.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 10 weeks (400 hours).

Exhibit Dates: 3/77–Present.

Objectives: To provide theory and skills for operation and maintenance of various subsystems aboard submarines.

Instruction: Combination course consists of the following: Electronic Hovering and Depth Control Combined Maintenance (A-623-0041), Integrated Announcing System AN/WIC-2 Combined Maintenance (A-623-0051), Atmosphere Analyzer Central Atmosphere Monitoring System (CAMS) Mk 1 (A-623-0048), Submarine Gyro Compass Mk 19 Mod 3 Combined Maintenance (A-670-0042), Dial X Telephone System Combined Maintenance (A-623-0058), Hydrogen Detector (Englehart) Combined Maintenance (A-623-0068) and Total Hydrocarbon Analyzer Combined Maintenance (A-623-0061). Topics include theory and analysis of DC and AC circuits, introduction to vacuum tubes, and solid-state devices, electromechanical components, and amplification and control.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics technology to be granted for completion of all components of the course (9/77).

NV-1715-0887

3306/3309 FTB Conversion Training

Course Number: A-121-0460.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, New London, CT.

Length: 18 weeks (540 hours).

Exhibit Dates: 1/76–Present.

Objectives: This is a conversion course designed to train a fire control (ballistic missile) specialist in the operation and maintenance of the Mk 80 fire control system.

Instruction: Combination course consisting of the following: Alignment Group Mk 1 Mods 0 and 1 (A-121-0283), Fire Control System Mk 80 Controls and Indications (A-121-0279), Polaris Target Card Computer System Mk 148 Mod 0 Theory (A-121-0275), Polaris Target Card Computer System Mk 148 Mod 0 Maintenance (A-121-0276), Fire Control System Technician, Mk 80 (A-121-0244), Data Computation and Transmission Loops FCS Mk 80 (A-121-0280), Mk 80 FCS Technician Replacement Training (A-121-0244), Switchboards and Power Supplies (A-121-0278), Digital Evaluation Unit (A-121-0282), and Mk 2 Guidance System (A-121-0254). Major areas covered are power supplies, alignment, computer theory, digital logic and guidance systems.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in electronics engineering technology for completion of the entire program to include all component courses (9/77).

NV-1715-0888

637 Class ESM ELINT Technician (ESM ELINT Technician SSN 637 Class, Class C-1)

Course Number: A-233-0045.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, New London, CT.

Length: 15 weeks (600 hours).

Exhibit Dates: 6/76–Present.

Objectives: To teach digital computer principles and the operation and maintenance of a digitally controlled communications receiver.

Instruction: Course consists of combination of the following: Basic Computer Theory (A-100-0032, A-100-0045) and ESM AN/BRD Combined Maintenance (A-102-0127).

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 10 semester hours in electronics technology or computer technology for completion of the entire program to include all component parts (9/77).

NV-1715-0889

Electronic Surveillance Measures (ESM) Technician SSN 688 Class, Class C1

Course Number: A-233-0046.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, New London, CT.

Length: 28 weeks (1120 hours).

Exhibit Dates: 6/77–Present.

Objectives: To provide non-nuclear submarine electronics technician personnel training in the operation and maintenance in specified equipment.

Instruction: Course is a combination of the following: AN/BPS-15 Combined Maintenance (A-102-0199), IFF AN/APX-72 and AN/UPX-17 Combined Maintenance (A-102-0229), Basic Computer Theory (A-100-0045, A-100-0032), Periscope Type 18 Combined Maintenance (A-102-0157), and ESM AN/WLR-8 Combined Maintenance (A-233-0040).

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technician training (9/77); in the lower-division baccalaureate/associate degree category, 5 semester hours in electronics technology, 5 in computer technology, 2 in electronics engineering, and an additional 5 in electronics technology or computer technology, all to be granted only for completion of all components of the entire course (9/77).

NV-1715-0890

Mk 112 Mod 2 Fire Control System (FCS) Maintenance, Class C1

Course Number: A-113-0059.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 20 weeks (600 hours).

Exhibit Dates: 3/73–Present.

Objectives: Provides necessary theory and skills required to maintain the large number of subsystems comprising a fire control system.

Instruction: Course provides primary training at the systems level in data processing, target tracking, and torpedo subsystems. Includes study of induction motors, generators, hysteresis motors, test equipment, number systems, and basic switching logic also at the systems level. Electromechanical components such as brakes, clutches, switches, relays, synchros, and resolvers are studied. Course includes classroom and laboratory study.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electrical technology or electromechanical technology (9/77).

NV-1715-0891

Alignment Group Mk 1 Mods 0 and 1, Class F-1

Course Number: A-121-0283; L-121-0056.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/61–Present.

Objectives: Provides corrective maintenance training related to alignment group Mk 1 Mods 0 and 1.

Instruction: To teach maintenance supportive theory and laboratory work involving fault isolation, alignment, adjustment, and calibration procedures.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics engineering technology (9/77).

NV-1715-0892

Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1

Course Number: A-121-0279; L-121-0053.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (79 hours).

Exhibit Dates: 10/74–Present.

Objectives: To provide training for maintenance and repair of the Mk 49 control console and the attack center indicating panel Mk 225.

Instruction: Course includes maintenance supportive theory which does not involve signal or electron flow or detailed mechanical breakdown except for the specified equipment. Student obtains skills to perform fault isolation and repairs on specified equipment.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

NV-1715-0893

Polaris Target Card Computer System Mk 148 Mod 0 Maintenance, Class F1

Course Number: A-121-0276.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/74–Present.

Objectives: This is an application course utilizing theory acquired in the Polaris Target Card Computer System Mk 148 Mod 0 Theory course (A-121-0275).

Instruction: Course offers laboratory work involving fault isolation and repair of the Polaris target card computer system (PTCCS) Mk 148 Mod 0. Corrective maintenance is stressed.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0894

Polaris Target Card Computer System Mk 148 Mod 0 Theory, Class C1

Course Number: A-121-0275; L-121-0049.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (84 hours).

Exhibit Dates: 8/74–Present.

Objectives: To present a theory course supporting corrective maintenance of the Polaris target card computer system Mk 148 Mod 0

Instruction: Course offers advanced theory involving control, logic, signal flow and sequential operation of the Polaris target card computer system (PTCCS); includes fault isolation procedures, repair and replacement of components, as well as functional interface with the remainder of the weapons system including power requirements and input and output signals in terms of type, format, source and destination.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in logic and control systems (9/77).

NV-1715-0895

Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1

Course Number: A-121-0280; L-121-0048.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3 weeks (90 hours).

Exhibit Dates: 10/74–Present.

Objectives: To provide training for corrective maintenance of the FCS Mk 80 Mods 2 and 3.

Instruction: Course offers maintenance support theory which does not involve signal or electron flow or detailed mechanical component breakdown except for the specialized equipment specified.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

NV-1715-0896

Electronic Test Equipment Basic Operator, Class F1
(Electronic Test Equipment Operation)

Course Number: A-198-0023; L-198-0012.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 4/74–Present.

Objectives: To provide the training necessary to enable the student to effectively care for and use common types of test equipment.

Instruction: The course explains the proper care and use of DC current and voltmeters, AC voltmeters, ohmmeter, vacuum tube voltmeters, differential voltmeters, and the volt-ohm-milliammeter. Meter scale reading accuracy and the loading effects of a voltmeter are explained. Practical exercises using an ohmmeter to test transistors and the use of meters in transistor and tube circuits are given. Oscilloscopes, RF generators, and frequency counters operation are explained and their use in aligning a superhetrodyne receiver is given as a practical exercise.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics laboratory (9/77).

NV-1715-0897

Polaris Target Card Computer System Peripheral Equipment, Class C1

Course Number: A-121-0277; L-121-0051.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 4 weeks (120 hours).

Exhibit Dates: 9/74–Present.

Objectives: Teaches corrective maintenance of a computer tape reader, a card punch/reader, and an IBM selectric typewriter transmitter receiver.

Instruction: Course concentrates on operational tests and procedures for the maintenance of the equipment specified; provides the theory necessary to support all corrective maintenance without going into signal or electron flow or detailed mechanical component breakdown except for those components unique to the peripheral equipment. Also provides skills to perform fault isolation and make repairs with limited supervision to the card punch/reader, punched tape reader, and the typewriter transmitter receiver.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0898

Controllers and Circuit Breakers Combined Maintenance
(Circuit Breakers and Controllers)
(Controllers Circuit Breakers, Class F1)

Course Number: A-662-0038; L-662-0013.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Training Center, Charleston, SC; Submarine School, Groton, CT.

Length: 2 weeks (60–62 hours).

Exhibit Dates: 6/72–Present.

Objectives: To provide necessary principles of circuit breakers and controllers to enable effective maintenance and repair of equipment used on submarines.

Instruction: Approximately 30 percent of course is devoted to theory and characteristics of circuit breakers, under voltage relays, under frequency relays, various tripping devices and the fundamentals of DC voltmeters and AM meters. Student learns purpose, characteristics, and the principle of operation, maintenance and adjustments on 6 types of circuit breakers and 5 types of controllers used aboard submarines.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0899

Polaris Loran 'C' Advanced Training
(Loran 'C' Advanced Maintenance)
(Loran 'C' AN/WPN Refresher Maintenance Class F1)

Course Number: A-193-0258; L-193-0011.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (6 hours).
Exhibit Dates: 9/74–Present.
Objectives: To offer the theory of operation of a Loran 'C' receiver and to teach the student to perform fault isolation and make repairs.
Instruction: Course covers timing loop, modes, frequencies, input/output signals, sequential operation, control and indicators, and alarm search loop of a Loran 'C' receiver, and teaches the student to perform systematic fault isolation, operational tests using test equipment, repair, alignment, adjustment, and calibration procedures on the equipment.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology (9/77).

NV-1715-0900

Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance
(SECT Buoy AN/BST-1 Basic Maintenance, Class F1)
(AN/BST-1 SECT Maintenance for Submarine Tender Technician)

Course Number: A-130-0144; L-101-0013.
Location: Submarine Training Center, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, CT.
Length: 2 weeks (60 hours).
Exhibit Dates: 2/75–Present.
Objectives: To provide theory and skills necessary for the operation, maintenance, and repair of the SECT buoy AN/BST-1.
Instruction: Major areas of course cover troubleshooting and programming of the specialized equipment specified.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0901

Generator Regulators, Class F-1

Course Number: L-662-0023.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 7/72–Present.
Objectives: This is a basic course in the operation, maintenance and troubleshooting of static regulators.
Instruction: Approximately 60 percent of this course is devoted to classroom work on AC theory and vector analysis of circuits and components with the remainder of the time spent in troubleshooting 2000 KW voltage regulators and 300 KW speed/voltage regulators. Time is given to review of previous training.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in electrical engineering technology (power option) (9/78).

NV-1715-0902

Maintenance Analysis Test Set (MATS) Mk 352, Class F1

Course Number: A-121-0285; L-121-0030.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (57–60 hours).
Exhibit Dates: 1/61–Present.
Objectives: To present theory of operation of specific military equipment and fault isolation and repair of that equipment.
Instruction: Course presents a study of the theory of operation of specialized military equipment utilizing logic and-or-nor gates and their sequential operation. Students will perform fault isolation tests and make repairs on the equipment.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (9/77).

NV-1715-0903

Radio Direction Finder AN/BRD-6 Combined Maintenance
(Radio Direction Finder AN/BRD-6 Operational Maintenance)
(AN/BRD-6B Combined Maintenance, Class F1)

Course Number: A-102-0159; L-102-0020; F-101-0023.
Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 11/73–Present.
Objectives: To teach the theory of operation and maintenance of special military equipment.
Instruction: Course offers theory of operation of special military equipment including antenna loops, pre-amps, flood detectors, RF units, IF units, power supplies and synchro units. Students learn to perform adjustments, fault isolation, signal trace, and to make repairs to the component level.
Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (9/77).

NV-1715-0904

Digital Fundamentals, Basic
(Basic Digital Computer Theory)
(Basic Digital Fundamentals, Class F1)

Course Number: A-100-0045; L-000-0058; F-000-0080.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.
Length: 3 weeks (90 hours).
Exhibit Dates: 6/76–Present.
Objectives: To provide an introduction to digital fundamentals, including number systems, Boolean algebra, logic conventions, combinational and sequential circuits, memory A/D and D/A conventions, digital logic families, and organization of a typical computer.
Instruction: Course offers a study of binary, octal, duodecimal, BCD, and hexadecimal number systems. Includes conversions between number systems, binary arithmetic, complements, excess three code, and negative number representation, Boolean algebra, Veitch diagrams, graphical symbols, gates, flipflops, counters and registers. Topics include a study of the control unit, arithmetic unit, memory unit and I/O unit; Ellol detection and collection; analog-to-digital, digital-to-analog programming, diagnostics; digital logic families; and the organization of a general purpose computer.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 5 semester hours in electronics technology or computer technology (9/77).

NV-1715-0905

Special Technology I

Course Number: A-100-0046; L-000-0033.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 4–6 weeks (120–180 hours).
Exhibit Dates: 4/75–6/76.
Objectives: To provide the student working in communications with a thorough practical knowledge of basic electronics.
Instruction: Course covers AC and DC circuits with vacuum tubes, amplifiers, and an introduction to solid-state devices; also covers structure of matter, physical aspects of resistors, inductors, and capacitors; Ohm's and Kirchoff's laws for DC series, parallel, and series-parallel circuits, DC bridge circuits, voltage dividers, reading schematic diagrams, use of a multimeter AC voltage generation and characteristics of a sinewave, ideal transformers; AL, AC, and ALC series and parallel circuits with respect to current, voltage, power, Q, impedance and resonance, characteristics of tube-type diodes and their application to power supplies, multielement tubes, basic class A, B, AB, and C tube-type amplifiers and their frequency response, and introduction to solid-state theory, diodes, transistors, and their respective application to power supplies and amplifiers. After January 1976 course included arithmetic and an overall review of the course.
Credit Recommendation: In the vocational certificate category, 6 semester hours in electronics (9/77).

NV-1715-0906

Special Technology II

Course Number: A-100-0047; L-000-0034.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 4/75–6/76.
Objectives: To provide a practical course in basic electronics.
Instruction: Topics covered include tubes, transistors, amplifiers, oscillators, modulation, transmitters, wave propagation, and power supplies, antennas, and troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics engineering technology (9/77).

NV-1715-0907

Special Technology III

Course Number: A-100-0048; L-000-0035.
Location: Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 2 weeks (60 hours).
Exhibit Dates: 2/75–Present.
Objectives: To provide the student working in communications with a thorough practical knowledge of basic radio receiver circuits.
Instruction: Course is structured to be the apex of Special Technology I and II and is designed primarily for technicians working with radio frequencies. Principles of operation of a TRF, superheterodyne, and single-sideband receivers are given, including the RF, IF, and audio amplifiers, detector circuits, oscillator circuits, and mixer circuits. The advantages and disadvantages of a TRF, superheterodyne and single-sideband are explained. Understanding of schematic diagrams, signal flow, and troubleshooting procedures are given. Students use a VTVM, RF signal generator, and an oscilloscope in troubleshooting a superheterodyne circuit.
Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (9/77).

NV-1715-0908

Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training

(Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1)

Course Number: A-121-0263.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/74–Present.

Objectives: To learn functional operations and to isolate faults and make repairs on special-purpose military equipment.

Instruction: Course teaches the functional operation of special military equipment utilizing circuit and logic diagrams including control, logic, program sequence, sequential operations, alarms and displays, and to isolate faults, troubleshoot, repair, adjust and calibrate the equipment studied.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology (9/77).

NV-1715-0909

Polaris A3 Missile Advanced Training

Course Number: A-121-0261.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/66–Present.

Objectives: To study the theory of operation and fault isolation, and to make repairs on missile fire control systems.

Instruction: Course offers a study of the functional operations and schematic analysis of a missile fire control system including its control, logic, sequential operation and teaches student to learn fault isolation and component replacement.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology (9/77).

NV-1715-0910

Missile Launcher Mk 17 Mod 1 Advanced Training, Class C1

Course Number: A-121-0271.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/74–Present.

Objectives: To study electrical, mechanical, pneumatic and hydraulic theory and to learn to troubleshoot and maintain special military equipment utilizing these components.

Instruction: A study of dehumidifier systems, including heating and cooling, pneumatic relays and electronic monitoring equipment; theory and maintenance of high-pressure air, nitrogen, and hydraulic valve systems; electronic environmental monitoring equipment, including moisture and humidity detection; electrical control system utilizing relay logic; and fault isolation and repair of equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical technology (9/77).

NV-1715-0911

Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1

Course Number: A-193-0261.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: To provide knowledge and skills required for the corrective maintenance, fault isolation and repair of a navigation control console.

Instruction: Course offers classroom and laboratory time in advanced theory and corrective maintenance of a radio navigation receiver.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

NV-1715-0912

Sonar Receiving Set AN/BQR-15 Mod 0 Advanced Maintenance, Class F1

(Sonar Receiving Set AN/BQR-15 Mod 0 Operator and Maintenance)

Course Number: A-130-0125; F-130-0034.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, New London, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 2 weeks (67 hours).

Exhibit Dates: 10/75–Present.

Objectives: To provide theory of operation and maintenance on the specific military equipment.

Instruction: Course includes the study of the theory of operation of specialized military equipment. Student learns to perform fault isolation, calibrate, and adjust the equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1715-0913

Loran AN/WRN-5 Combined Maintenance

(Satellite Navigation System AN/WRN-5)

(Satellite Receiver AN/WRN-5 Combined Maintenance, Class C-1)

(AN/WRN-5 Combined Maintenance)

(Navigation Set Operation and Maintenance)

Course Number: A-193-0054.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, New London, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 8/73–Present.

Objectives: To provide the necessary skills and theory to operate, repair, and maintain a satellite receiver/computer.

Instruction: Course discusses at the functional level magnetic and core memories of a computer, arithmetic logic, input/output devices, analog-to-digital conversion, synchro-to-digital conversion, and phase modulation detection. More than 50 percent of the course is devoted to operational description of the equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in computer technology (9/77).

NV-1715-0914

IFF AN/APX-72 and AN/UPX-17 Combined Maintenance

(IFF Transponder AN/APX-72 and AN/UPX-17 Combined Maintenance, Class F1)

Course Number: A-102-0229; A-102-0151.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, CT; Submarine School, New London, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/76–Present.

Objectives: To provide training in the operation and maintenance of the AN/APX-72 and AN/UPX-17 IFF equipments aboard submarines.

Instruction: Major emphasis of course is on qualitative functional and operational description of the specified equipment concentrating on corrective maintenance.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0915

Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1

Course Number: A-193-0260.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: Course offers a review of theory and maintenance procedures for radio navigation equipment.

Instruction: Course includes block diagram, study of receivers, computers, and peripheral equipment; also includes approximately 35 hours of alignment procedures for receivers, computers, data processors, and peripheral equipment. Remainder of course time is devoted to troubleshooting equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0916

Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1

(SINS Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance)

Course Number: A-193-0266.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine School, New London, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: To provide theory of operation of a selectric typewriter and to teach fault isolation, adjustment, and repair of the equipment.

Instruction: Course teaches theory of operation of a selectric typewriter, including controls, clutches, gears, cams, latches, linkages and springs. Students will perform fault isolation and make adjustments and repairs to the equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical technology (9/77).

NV-1715-0917

Launcher Mk 21 Mod 2 Advanced Training, Class F1

Course Number: A-121-0272.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/74–Present.

Objectives: To study electrical, mechanical, pneumatic and hydraulic theory and to learn to troubleshoot and maintain special military equipment utilizing these components.

Instruction: Course presents a study of dehumidifier systems, including heating and cooling, pneumatic relays, and electronic monitoring equipment. Course includes theory of operation and maintenance of high-pressure air, nitrogen and hydraulic valve systems; electronic environmental monitoring equipment, including moisture and humidity detection; electrical control systems utilizing relay logic, and performance of fault isolation tests and repair of equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanics (9/77).

NV-1715-0918

6L16 Oxygen Generator Electrical Technician

Course Number: A-623-0039.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, CT; Fleet Ballistic Missile Submarine Training Center, Charleston, SC.

Length: 3 weeks (90 hours).

Exhibit Dates: 1/74–Present.

Objectives: To provide training in the electrical maintenance of an oxygen generator.

Instruction: Approximately one-third of the course provides instruction in power supplies, contact annunciators, magnetic amplifier annunciators, readout circuits, and pressure controller systems. The balance of the course is devoted to troubleshooting and calibration.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0919

Ships Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I

Course Number: A-193-0294.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: To provide the theory of operation of specific military equipment and to enable the student to perform fault isolation on the equipment.

Instruction: Course offers a study of the theory of operation of specialized military equipment, with limited instruction on fault isolation and repair.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1715-0920

Ships Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance II

Course Number: A-193-0295.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: Provides advanced training (follow-on) for operation and fault isolation of the ships inertial navigation system (SINS) Mk 2 Mods 1 and 4 systems.

Instruction: Offers quantitative theory related to maintenance and repair of logic circuits and specialized mechanical components unique to specialized equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0921

Ships Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance I

Course Number: A-193-0292.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: To teach theory of operation and fault isolation performance on specific military equipment.

Instruction: Course presents theory of operation of specialized military equipment in the pre-navigate mode, including caging loops, torquing loops, alignment loops, and alarm circuitry, and the performance of fault isolation and repair on the equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (9/77).

NV-1715-0922

Ships Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II

Course Number: A-193-0293.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: To study the theory of operation and maintenance of specialized military equipment.

Instruction: The study of temperature control, monitors, data transmission, and the performance of fault isolation and repair on specialized military equipment are covered.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (9/77).

NV-1715-0923

Verdan Computer Theory and Maintenance I

(Verdan Theory and Maintenance I, Class F1)

Course Number: A-193-0290.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: To teach the theory of operation of a special-purpose digital computer and performance of fault isolation and repair on the equipment.

Instruction: Course offers a study of the functional operation of a special-purpose digital computer to include the following topics: control, indicators, modes, sequence of operations, input/output, timing relationships, loop functions, power supplies, coding, instructions and data format, and registers; fault isolation and repair on the Universal section, GP (non-compute) section, and the DDA section of the Verdan computer.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in electronics technology (9/77).

NV-1715-0924

Verdan Computer Theory and Maintenance II

(Verdan Theory and Maintenance, Class F1)

Course Number: A-193-0291.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: To teach the theory of operation of a special-purpose digital computer and performance of fault isolation and repair on the equipment.

Instruction: Course covers theory of operation of the I/O section of a digital computer including input and output logic and coding, I/O diagnostic tests, control panel switches and diagrams, keyboard, displays, and typewriter buffer circuitry, and teaches performance of fault isolation and equipment repair. As conducted after 10/77 course includes functional description and operation of tape reader, including amplifiers, solenoid drivers, photodiode sensors and control signals.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (9/77).

NV-1715-0925

Radio Navigation Set AN/BRN-3/3A Computer Advanced Training

(AN/BRN-3 Computer Advanced Training)

Course Number: A-193-0271.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 1/75–Present.

Objectives: To present the theory of operation of a digital data processing computer with tape reader/punch and to perform fault isolation, corrective maintenance, and repairs on the equipment.

Instruction: Course presents a study of digital data processing computer using block, logic, and schematic diagrams of the control and state counters, memory access, memory selection, and registers for shift, hold, add, increment, decrement, complement, merge, and extract operations. Interface circuitry for the tape reader and tape punch, and perform fault isolation, mechanical adjustment, and repairs on the equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics technology (9/77).

NV-1715-0926

Naval Data Automated Computer (NAVDAC) Advanced Training

Course Number: A-193-0282.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/75–Present.

Objectives: To teach theory of operation and performance of fault isolation, and to teach repair on specialized military equipment.

Instruction: Course includes study of logic circuits and elements as they relate to timing, storage, control, input/output, arithmetic and power supplies for specific military equipment. Students will learn to perform fault analysis and make repairs on the equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics (9/77).

NV-1715-0927

SUBMARINE COMMUNICATION APPLICATION AND THEORY MODULE 1 (SCATMOD 1)

Course Number: A-100-0035.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 4 weeks (120 hours).

Exhibit Dates: 3/75–Present.

Objectives: To review basic arithmetic and algebra, including linear equations, and to introduce electricity and the study of DC circuits.

Instruction: Course presents an introduction to the structure of matter and a study of electrostatics, magnetism, EMF, current, resistance, cells, and batteries, DC series circuits and applications, parallel DC circuits and applications of parallel circuits, equivalent circuits and applications.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electronics, 1 in mathematics (9/77).

NV-1715-0928

SUBMARINE COMMUNICATION APPLICATION AND THEORY MODULE 2 (SCATMOD 2)

Course Number: A-100-0036.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 4–5 weeks (120 hours).

Exhibit Dates: 3/75–Present.

Objectives: Course provides training in the fundamentals of electronics and electronic circuitry.

Instruction: Course provides a study of trigonometry, including right triangles, trigonometric tables and vectors (including addition and subtraction), theory of AC Circuits, inductance, inductive reactance, capacitive reactance, series RL and RLC circuits, impedance, Q, parallel RL and RLC circuits, series and parallel resonance. A study of solid-state diodes and power supplies, transistors and amplifiers, multielement tubes and amplifiers, tuned circuits, amplifier distortion and coupling.

Credit Recommendation: In the vocational certificate category, 5 semester hours in electronics (9/77)

NV-1715-0929

SUBMARINE COMMUNICATION APPLICATION AND THEORY MODULE 3, CLASS A-1 (SCATMOD 3)

Course Number: A-100-0050.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2–3 weeks (90 hours).

Exhibit Dates: 11/75–Present.

Objectives: Course presents a study of electronics circuits and applications, including oscillators, pulse and wave shaping, RF power amplifiers, CW keying and transmitters, modulation, AM transmitters, FSK, single sideband, transmission lines, antennas and waveguides.

Instruction: Course covers theory of operation of oscillators, including Armstrong, Hartley, TPTG, crystal controlled, Colpitts, electron-coupled, blocking, and RC. A study of RC shaping circuits and applications; astable, monostable, distable multivibrators; Schmidt triggers; clamping and limiting; switching; gating and applications; and frequency compensation are presented. Also presented are theory of RF power amplifiers and applications, CW keying and applications, CW transmitters, modulation, AM transmitters, frequency shift keying, single sideband, transmission lines, antennas, and wave propagation.

Credit Recommendation: In the vocational certificate category, 4 semester hours in electronics (9/77).

NV-1715-0930

SUBMARINE COMMUNICATION APPLICATION AND THEORY MODULE 4 (SCATMOD 4)

Course Number: A-100-0051.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 3/75–Present.

Objectives: To present a study of the theory of superheterodyne receivers, including CW and SSB, and to teach students to perform troubleshooting on the equipment with the use of oscilloscopes, and signal generators.

Instruction: An introduction to basic superheterodyne receivers, CW and SSB receivers, control circuits, and applications of receiver control circuits. In-depth study of a six-step troubleshooting procedure with laboratory application, using oscilloscopes and signal generators, is presented.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics (9/77).

NV-1715-0931

SUBMARINE COMMUNICATION APPLICATION AND THEORY MODULE 5 (SCATMOD 5)

Course Number: A-100-0052.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 3/75–Present.

Objectives: To familiarize the individual with military procedures for documenting faulty equipment and technical manual layout, and to permit the individual to develop skills in using hand tools and soldering equipment and to perform adjustments, alignment, and calibration procedures on equipment.

Instruction: The course presents a study of military procedures and technical manual layouts and the use of hand tools and soldering irons to develop skills to disassemble, repair, reassemble, solder, and splice cables and perform adjustments, alignments, and calibration procedures on military equipment.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (9/77)

NV-1715-0932

SUBMARINE COMMUNICATION APPLICATION AND THEORY MODULE 6 (SCATMOD 6)

Course Number: A-100-0053.

Location: Submarine School, New London, CT; Submarine Training Center, Pacific, Pearl Harbor, HI.

Length: 3–4 weeks (90 hours).

Exhibit Dates: 11/75–Present.

Objectives: To introduce digital principles, number systems, logic circuits, Boolean algebra, functional operation of computers, programming, concepts and systems applications.

Instruction: Course presents a study of number systems, including binary and octal; conversions between ranixes, arithmetic operations, and components; logic circuits, including and, or, nand, nor, exors, and inverters; introduction to Boolean algebra and use of the Veitch diagram; study of flipflops, registers, encoding, decoding, counting, arithmetic, control, memory, I/O, programming, and system applications.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics technology (9/77).

NV-1715-0933

AN/ALR-45 COUNTERMEASURES RECEIVING SET INTERMEDIATE MAINTENANCE

Course Number: C-102-3093.

Location: Naval Air Maintenance Training Detachment, NAS Miramar, CA; Naval Air Maintenance Training Detachment, NAS Oceana, VA; Naval Air Maintenance Training Detachment, NAS Lemoore, CA; Naval Air Maintenance Training Detachment, NAS Cecil Field, FL; Naval Air Maintenance Training Detachment, NAS Whidbey Island, WA.

Length: 5 weeks (152 hours).

Exhibit Dates: 6/74–Present.

Objectives: To provide instruction in the maintenance of the specific countermeasures receiving set consisting of a pulse analyzer, an amplifier detector, azimuth indicator, and peripheral equipment.

Instruction: Instruction includes circuit analysis and troubleshooting using applicable test equipment, and instruction in publications and safety procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in electronics laboratory (2/78); in the lower-division baccalaureate/associate degree category, 2 semester hours in electronics laboratory (2/78).

NV-1715-0934

ELECTRONIC HOVERING AND DEPTH CONTROL COMBINED MAINTENANCE (Electronic Hovering and Missile Compensation)

Course Number: A-623-0041.

Location: Fleet Ballistic Missile Submarine Training Center, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI; Submarine School, Groton, New London, CT.

Length: 2 weeks (63 hours).

Exhibit Dates: 2/75–Present.

Objectives: To train technicians to operate, align, repair, and perform preventive maintenance on equipment to stablize a submarine during missile launch.

Instruction: Operating stabilization equipment and performing preventive maintenance, alignment, and repair on the electronic aspects of the equipment. Troubleshooting of the system covers controls, indicators, transducers, and operational amplifiers.

Credit Recommendation: No credit because of the limited specialized nature of the course (9/77).

NV-1717-0001

AVIATION MANAGEMENT

Course Number: E-4D-10.

Location: Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train staff and unit maintenance officers to fully utilize the Navy maintenance and material management system.

Instruction: Lectures on documentation and analysis of man-hour accounting, maintenance data collection, aircraft statistical data, and maintenance requirement cards; personnel management; and familiarization of staff and support activities.

Credit Recommendation: In the vocational certificate category, credit in aviation management on the basis of institutional evaluation (2/74).

NV-1717-0002

RA-5C Plane Captains Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, Albany, GA; Air Maintenance Training Detachment, Sanford, FL.

Length: 3–4 weeks (120–160 hours).

Exhibit Dates: 1/68–Present.

Objectives: To provide fleet maintenance personnel with training in RA-5C aircraft organizational maintenance.

Instruction: Lectures and practical exercises in aircraft structures and hydraulic, electrical, power plant, environmental, and indicating systems maintenance; corrosion control; and flight and inlet-duct airflow control systems operations and maintenance.

Credit Recommendation: In the vocational certificate category, 3 semester hours in maintenance management (2/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management (2/74).

NV-1717-0003

Naval Aviation Maintenance/Material Management, Class B

Course Number: Not available.

Location: Naval Air Technical Training Station, Memphis, TN.

Length: 2 weeks (78 hours).

Exhibit Dates: 10/70–Present.

Objectives: To train noncommissioned officers to supervise maintenance activities.

Instruction: Lectures and practical experience in aviation maintenance management procedures, publications, data collection systems, and aviation safety.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance management (2/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (2/74).

NV-1717-0005

RA-5C Maintenance Supervisors Familiarization

Course Number: C-000-3743; C-2A-3743.

Location: Air Maintenance Training Detachment, Albany, GA.

Length: 4 weeks (144 hours).

Exhibit Dates: 2/73–Present.

Objectives: To train senior enlisted personnel and branch officers in the operation and mission capabilities of the RA-5C weapons system.

Instruction: Lectures and practical exercises in the operation and mission capabilities of the RA-5C weapon system, including aircraft familiarization and safety, primary essential aircraft systems, electronic systems, structures and corrosion control, hydraulic power system, survival and environmental systems, flight control and fuel systems, AN/ASQ-56A integrated electronic central and electronic altimeter, electronic countermeasures system, and reconnaissance systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance supervisor familiarization (6/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in maintenance supervisor familiarization (6/74).

NV-1717-0006

Prospective Engineer Officers

Course Number: K-4H-465.

Location: Fleet Training Center, San Diego, CA.

Length: 8 weeks (240 hours).

Exhibit Dates: 6/65–12/68.

Objectives: To train junior officers as prospective engineering and damage control officers on steam- and diesel-drive ships.

Instruction: Lectures and practical exercises in the duties of an engineering department officer and a damage control officer. Course includes administration, boilers, auxiliaries, steam propulsion and diesel propulsion machinery, electrical systems and equipment, fire fighting, damage control, and nuclear, biological, and chemical warfare defense.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in industrial management (7/74); in the upper-division baccalaureate category, 3 semester hours as an elective in industrial management (7/74).

NV-1717-0007

Warehouse Operations Management

Course Number: A-8C-0015.

Location: Naval Supply Center, Oakland, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 10/71–Present.

Objectives: To train military and civilian personnel in military warehousing.

Instruction: Lectures and practical exercises in the study of warehousing and storage planning and practices; materials-handling principles; selection and utilization of equipment; automated materials-handling systems; military packaging policies and the basic principles of unit protection and packing; including quantitative aspects of management; documentation and control; warehousing and storage; materials handling; preservation and packaging.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1717-0008

Aviation Maintenance Control Administration

Course Number: C-000-3204.

Location: Air Maintenance Training Detachment, Whidbey Island, WA; Air Maintenance Training Detachment, North Island, CA; Air Maintenance Training Detachment, Alameda, CA; Air Maintenance Training Detachment, Quonset Point, RI; Air Maintenance Training Detachment, Pensacola, FL; Air Maintenance Training Detachment, Norfolk, VA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Lemoore, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 8/71–Present.

Objectives: To train enlisted personnel in the administrative practices and procedures of aviation units.

Instruction: Lectures and practical exercises in the administrative practices and procedures of aviation units, including maintenance management, maintenance and production control, component repair program, maintenance data collection and reporting, aircraft accounting, ground support equipment data reporting, aircraft engine accounting system, logs and records, and administrative procedures.

Credit Recommendation: In the vocational certificate category, 1 semester hour in organization and management (7/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in organization and management (7/74); in the upper-division baccalaureate category, 1 semester hour in organization and management (7/74).

NV-1717-0010

Aviation Ordnanceman, Class B

Course Number: C-646-2011.

Location: Air Technical Training Center, Jacksonville, FL.

Length: *Version 1:* 21 weeks (840 hours). *Version 2:* 21–25 weeks (840–1000 hours).

Exhibit Dates: *Version 1:* 2/74–Present. *Version 2:* 10/53–1/74.

Objectives: To train enlisted personnel to perform ordnance functions aboard ships.

Instruction: Lectures and practical exercises in administrative techniques, mathematics, physics, electricity, guns, munitions, equipment, and missiles.

Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in basic electronics technology (6/75); in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics technology and 2 in maintenance management (6/75). *Version 2:* In the vocational certificate category, 2 semester hours in electricity (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in electricity (12/68); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1717-0011

Naval Aircraft Maintenance Management

Course Number: Not available.

Location: Naval Training Detachment, North Island, CA; Naval Training Detachment, Jacksonville, FL; Naval Training Detachment, Lemoore, CA; Naval Training Detachment, Quonset Point, RI; Naval Training Detachment, Pensacola, FL; Naval Training Detachment, Norfolk, VA; Naval Training Detachment, Whidbey Island, WA; Naval Training Detachment, Barbers Point, HI.

Length: 3 weeks (120 hours).

Exhibit Dates: 6/67–Present.

Objectives: To train enlisted personnel to manage aviation maintenance materiel.

Instruction: Lectures and practical exercises in maintenance materiel management, including management, control and security of classified information, naval aircraft maintenance program framework organization, administrative functions and procedures, maintenance and materiel control, quality control, maintenance data collection system, and maintenance equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance management (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management (7/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1717-0012

PARACHUTE RIGGER SCHOOL, CLASS B

Course Number: None.

Location: Air Technical Training Unit, Lakehurst, NJ.

Length: 12 weeks (496 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To provide parachute riggers with administrative, theoretical, and practical backgrounds for operating squadrons.

Instruction: Lectures and practical exercises in supervision and management; aircraft maintenance skills; sewing machine adjustments and repairs; liquid oxygen and oxygen regulators; and pressure suits and components.

Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance management, 1 in sewing and sewing machine maintenance, 5 in liquid oxygen and regulators, and 2 in pressure suits (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in maintenance management (5/74); in the upper-division baccalaureate category, 2 semester hours in maintenance management (12/68).

NV-1717-0013

LEADERSHIP AND MANAGEMENT FOR OFFICERS (LMT)

(Leadership and Management for Petty Officers (LMT))

Course Number: A-7C-0018; A-500-0031.

Location: Various Naval Training Centers, USA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/75–Present.

Objectives: To provide officers and petty officers with the latest and most pertinent information on leadership methods, management techniques, and skills for applying the Navy's Human Goals Plan.

Instruction: Instruction covers responsibility, accountability, and authority; management and motivation; organizational development; interpersonal communications; problem-solving applications; crisis management; and pertinent human resources management information.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (3/76).

NV-1720-0001

SUBMARINE TENDER RADIOLOGICAL CONTROLS

Course Number: F-000-034.

Location: Submarine School, Groton, CT.

Length: 3 weeks (90 hours).

Exhibit Dates: 12/67–Present.

Objectives: To train enlisted personnel in the basic theory of radiological controls as applied to nuclear support ships and shore facilities.

Instruction: Lectures and practical exercises in basic theory of radiological controls as applies to nuclear support ships and shore facilities. Course includes basic mathematics, slide rule use, radiological controls, and testing of samples for radiation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in laboratory procedures (6/74).

NV-1721-0001

REMOTE SENSOR SYSTEM FOR PHYSICAL SECURITY, CLASS C1

Course Number: A-198-0030.

Location: Service School Command, Great Lakes, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 8/77–Present.

Objectives: To train selected students to maintain the remote sensor system for physical security at all times and in all conditions.

Instruction: Topics include troubleshooting and maintaining remote sensing equipment such as static, magnetic, and sonic, and keeping equipment operating properly under all conditions.

Credit Recommendation: In the vocational certificate category, 2 semester hours in security systems maintenance (9/77).

NV-1721-0002

NOISE MEASUREMENT AND REDUCTION

Course Number: F-210-014.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 7/73–Present.

Objectives: To train enlisted personnel to use sound measurement equipment, to isolate vibrations in noise-critical machinery, to reduce submarine noise, and to perform in-place dynamic balancing.

Instruction: Lectures and practical exercises in the use of sound measurement equipment, vibration analysis of noise-critical machinery, submarine noise reduction, and in-place dynamic balancing, including vibration fundamentals, analysis of frequency spectrum, mechanical vibration and measurement, airborne measurement, use of specific equipment, and overhaul of noise-critical motors.

Credit Recommendation: In the vocational certificate category, 2 semester hours in sound and vibration (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical technology laboratory (sound and vibration) or as an elective in mechanical technology (sound and vibration) (5/74).

NV-1721-0003

NOISE AND VIBRATION MEASUREMENT

Course Number: L-210-015.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel to operate sound- and vibration-monitoring equipment.

Instruction: Lectures and practical exercises in the operation of sound- and vibration-monitoring equipment, including sound and vibration theory, general radio equipment, calibration of vibration-monitoring equipment, vibration survey techniques and data analysis, in-place balance theory, vibration isolation, data acquisition, and equipment maintenance.

Credit Recommendation: In the vocational certificate category, 2 semester hours in sound and vibration (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical technology laboratory (sound and vibration) or as an elective in mechanical technology (sound and vibration) (5/75).

NV-1721-0004

INSTRUMENTMEN, CLASS A

Course Number: A-670-0010.

Location: Service Schools Command, Great Lakes, IL.

Length: 17 weeks (546 hours).

Exhibit Dates: 11/70–Present.

Objectives: To train enlisted personnel to repair manual typewriters and measuring instruments.

Instruction: Lectures and practical exercises in manual typewriter troubleshooting and repair, high- and low-pressure pneumatic and hydraulic measuring instruments repair and calibration, tachometers, torque- and flow-measuring instruments, temperature-measuring instruments, brazing and soldering techniques, and use of common hand and power tools.

Credit Recommendation: In the vocational certificate category, 5 semester hours in typewriter repair, 6 in instrument repair, 6 in mechanical technology (5/74); in the lower-division baccalaureate/associate degree category, 7 semester hours in mechanical technology (5/74).

NV-1721-0005

WATCH AND CLOCK REPAIR, CLASS C

(Instrumentmen—Watch Repair)

Course Number: A-670-0011.

Location: Service Schools Command, Great Lakes, IL.

Length: 16 weeks (480 hours).

Exhibit Dates: 6/70–Present.

Objectives: To train enlisted personnel to perform as watch and clock repairmen.

Instruction: Lectures and practical exercises in the lubrication, cleaning, disassembly, reassembly, and testing of clocks, watches, aneroid and mercurial barometers, and dial indicators, including use of watchmaker's tools (pivot drill and plug, balance staff, jewel setting, winding stem and click springs) and repivoting of wheel.

Credit Recommendation: In the vocational certificate category, 15 semester hours in horology or watch and clock making (6/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in horology or watch and clock making (6/74); in the upper-division baccalaureate category, 3 semester hours in horology or watch and clock making (6/74).

NV-1721-0006

A-7A/B ATTITUDE HEADING AND REFERENCE SYSTEM INTERMEDIATE MAINTENANCE

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 5/71–Present.

Objectives: To train maintenance personnel in the operation and maintenance of the A-7A/B attitude, heading, and reference system.

Instruction: Lectures and practical exercises on the A-7A/B attitude, heading, and reference system, including introduction to the system and review of gyroscopic and transistor fundamentals; detailed theory of the displacement gyro, amplifier power supply, compass adapter compensator, compass controller and switching rate gyro, attitude indicator coupler, attitude director indicator; and intermediate maintenance and test procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in instrument maintenance (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in instrument maintenance (6/74).

NV-1721-0007

Opticalmen, Class A

Course Number: A-670-0018.
Location: Service School Command, Great Lakes, Il.
Length: 17 weeks (540 hours).
Exhibit Dates: 1/68–Present.
Objectives: To train nonrated personnel as opticalmen in units of the fleet or in shore activities.
Instruction: Lectures and practical exercises in the duties of opticalmen, including basic mathematics, hand tools and measuring instruments, drills and drilling machines, grinders, basic lathe operation, basic milling machine operation, maintenance and material management, fundamentals of optics, optical instrument components, optical instrument repair, lens cementing and painting, primary telescopes, and navigational instruments.
Credit Recommendation: In the vocational certificate category, 3 semester hours in machine tool operation, 1 in basic arithmetic, 2 in physics (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 1 in basic arithmetic, 2 in physics (8/74); in the upper-division baccalaureate category, credit in physics on the basis of institutional evaluation (8/74).

NV-1721-0008

Gyrocompass Technician Mechanical, Class C1

Course Number: *All Versions:* A-670-0014. *Version 2:* A-670-014.
Location: Service School Command, Great Lakes, IL.
Length: *Version 1:* 5 weeks (167 hours). *Version 2:* 10 weeks (400 hours).
Exhibit Dates: *Version 1:* 9/73–Present. *Version 2:* 5/67–8/73.
Objectives: To train interior communications technicians to operate, maintain, and repair Sperry and Arma mechanical gyrocompasses.
Instruction: Lectures and practical exercises in the operation, maintenance, and repair of Sperry and Arma gyrocompasses, including principles of gyrocompasses, operation procedures, disassembly and assembly procedures, and inspection, overhaul, and repair procedures.
Credit Recommendation: *Version 1:* In the vocational certificate category, 3 semester hours in industrial-mechanical technology (9/77). *Version 2:* In the vocational certificate category, 3 semester hours as an elective in industrial or mechanical technology (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours as an elective in industrial or mechanical technology (8/74).

NV-1721-0009

Meteorological Equipment Maintenance, Class C

Course Number: C-198-2010.
Location: Air Technical Training Center, Lakehurst, NJ.
Length: 4–17 weeks (176–688 hours).
Exhibit Dates: 4/74–Present.
Objectives: To train electronic technicians to operate and maintain meteorological equipment in use within the Naval Weather Service Command and the Marine Corps Weather Service.
Instruction: Course consists of the following nine phases: I—Radiosonde Receptor Equipment; II—Weather Satellite Equipment; III—Transmissometer and RVR Converter; IV—Cloud Height Equipment; V—Surface Observational Equipment; VI—Weather Radar Equipment; VII—Weathervision Equipment; VIII—Radar-Telephone Transmission Systems; IX—Rawin Sounding Equipment. Students will attend all or part of the course, depending on their ultimate duty assignment. Group A students will complete all nine phases; Group B students will complete phases I and II; and Group C students will complete phases III, IV, and V.
Credit Recommendation: Group A: In the vocational certificate category, 12 semester hours in weather equipment maintenance or instrument repair (6/75); in the lower-division baccalaureate/associate degree category, 8 semester hours in instrumentation, electrical laboratory, and/or electronic laboratory, and 4 semester hours in weather equipment (6/75). Group B: In the vocational certificate category, 4 semester hours in weather equipment maintenance or instrument repair (6/75); in the lower-division baccalaureate/associate degree category, 4 semester hours in instrumentation, electrical laboratory, and/or electronic laboratory (6/75). Group C: In the vocational certificate category, 5 semester hours in weather equipment maintenance or instrument repair (6/75); in the lower-division baccalaureate/associate degree category, 5 semester hours in instrumentation, electrical laboratory, and/or electronic laboratory (6/75).

NV-1721-0010

Sound Analysis, Noise and Vibration Reduction (Enlisted)

Course Number: A-210-0014; F-210-015.
Location: Submarine School, Groton, CT.
Length: 3 weeks (91 hours).
Exhibit Dates: 3/70–Present.
Objectives: To train personnel in the techniques and equipment involved in the analysis and reduction of submarine noise and vibration.
Instruction: Lectures and practical exercises in the operation, calibration, and maintenance of specific noise and vibration measuring instruments.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1722-0001

Aviation Boatswain's Mate G Gasoline School, Class A (Gasoline Handling)

Course Number: Not available.
Location: Air Material Center, Philadelphia, PA.
Length: 9 weeks (350 hours).
Exhibit Dates: 5/56–4/58.
Objectives: To qualify enlisted personnel as aviation boatswain's mates (gasoline handling).
Instruction: Lectures and practical exercises in aircraft carrier air department organization, hydraulics principles, air-sea rescue, aircraft fire fighting and damage control fire fighting, aviation seamanship, aircraft carrier flight and hangar deck operations, fuel and oil storage and transfer, gaseous storage and transfer systems and handling operations, and fuel and fire-fighting equipment operation and preventive maintenance procedures.
Credit Recommendation: In the vocational certificate category, 2 semester hours as an elective in fire science, 1 as an elective in seamanship, and 3 as an elective in petroleum or chemical technology (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours as an elective in fire science, 1 as an elective in seamanship, and 3 as an elective in petroleum or chemical technology (4/74).

NV-1722-0002

Boatswain's Mate Training

Course Number: G-060-6305.
Location: Amphibious School, Norfolk, VA.
Length: 2–3 weeks (68–105 hours).
Exhibit Dates: 7/68–Present.
Objectives: To train seamen to perform the duties of a boatswain's mate.
Instruction: Lectures and practical exercises on duties of boatswain's mates, including honors and ceremonies, marlinspike seamanship, ground tackle and mooring, painting and equipment, damage control, gunnery, aids to navigation, rules of the road, life saving equipment, visual signals, weather, welin davits, amphibious boat seamanship, cargo handling and equipment, booms and rigging, and replenishment at sea.
Credit Recommendation: In the vocational certificate category, 2 semester hours in seamanship (5/74).

NV-1722-0003

Coastal Patrol Craft Training

Course Number: H-00-1800; H-000-1800.
Location: Inshore Operations Training Center, Mare Island, CA.
Length: 9 weeks (487–561 hours).
Exhibit Dates: 7/69–Present.
Objectives: To train personnel for riverine/coastal warfare operations.
Instruction: Lectures and practical exercises on riverine/coastal warfare operations, including team training for coastal patrol craft crews in boat operations, tactics, navigation, seamanship, gunnery, and communications; specialized training in small arms, engineering, hull, damage control and salvage; survival-in-water training; all aspects of counterinsurgency and survival; and language training.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-1722-0004

Fin Stabilizer System (Sperry and Ledgewood Controls) Maintenance, Class C1

Course Number: A-690-0023.
Location: Service School Command, Great Lakes, IL.
Length: 6 weeks (180 hours).
Exhibit Dates: 7/77–Present.
Objectives: To train selected personnel to check out, troubleshoot, maintain and repair the Sperry active fin stabilizer system.
Instruction: Instruction in the operation and maintenance of the fin stabilizer system including servo-amplifier systems, hydraulic systems, and system troubleshooting procedures.
Credit Recommendation: In the vocational certificate category, 3 semester hours in electromechanical and hydraulic systems (9/77).

NV-1722-0005

Basic Boatswain's Mate (General)

Course Number: J-060-0622; J-060-6221.

Location: Fleet Training Center, Newport, RI.

Length: 3 weeks (105 hours).

Exhibit Dates: 8/71–Present.

Objectives: To provide nonrated naval personnel with the skills of the general boatswain's mate rating.

Instruction: Lectures and practical exercises on the responsibilities of the general boatswain's mate rating, including duties, marlinspike seamanship, ground tackle, line handling, painting and equipment, honors and ceremonies, aids to navigation, weather, rules of the road, boat seamanship, visual signals, life saving equipment, welin davits, booms and rigging, cargo-handling equipment, and replenishment at sea.

Credit Recommendation: In the vocational certificate category, 2 semester hours in seamanship (5/74).

NV-1722-0006

Destroyer Officer

Course Number: A-00-107.

Location: Naval Destroyer School, Newport, RI.

Length: 26 weeks (780 hours).

Exhibit Dates: 6/69–Present.

Objectives: To train officers in the operations, weapon systems, and engineering departments aboard naval destroyers.

Instruction: Lectures in ship handling and operations, weapons systems, antisubmarine warfare, fuel oil system, electrical system, lubrication system, and special problems in damage control.

Credit Recommendation: In the vocational certificate category, 5 semester hours in industrial technology (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in industrial technology (6/74); in the upper-division baccalaureate category, 3 semester hours in naval engineering (12/68).

NV-1722-0007

Basic Submarine Quartermaster, Class A

Course Number: F-772-010.

Location: Submarine School, Groton, CT.

Length: 5 weeks (199 hours).

Exhibit Dates: 8/67–Present.

Objectives: To train enlisted personnel to assist in navigation and visual communication.

Instruction: Lectures and practical exercises in navigation publications, charts and instruments, piloting, tides and currents, rules of the nautical road, use of operating signals in cummunications, flaghoists, flashing lights, and semaphore.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1722-0008

Prospective Officer of the Deck

Course Number: C-602.

Location: Fleet Training Center, San Diego, CA.

Length: 3 weeks (92 hours).

Exhibit Dates: 6/66–12/68.

Objectives: To provide basic preparation for the duties of an officer of the deck in port or underway.

Instruction: Lectures and practical exercises in communications, navigation and rules of the road, tactics, watchstanding in port and at sea, anchoring and weighing anchor, ship handling drill, navigational instruments, and the U.S. bouyage system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-1722-0009

Swift Boat Crew Training

Course Number: H-00-5324; H-000-5324.

Location: Amphibious School, Coronado, CA.

Length: 9 weeks (260 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To prepare personnel for duty as Swift boat crewmen.

Instruction: Lectures and practical exercises in survival swimming, maps and charts, navigation, radio operation, communications, electronics, engine operation, boat electrical systems, and maintenance.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-1722-0010

River Patrol Craft Training

Course Number: H-00-1600; H-000-1600.

Location: Inshore Operations Training Center, Mare Island, CA.

Length: 8–10 weeks (432–538 hours).

Exhibit Dates: 11/66–Present.

Objectives: To train officers and enlisted personnel in the conduct of river patrol operations.

Instruction: Team training in boat operations and tactics; boarding and search procedures; navigation; seamanship; gunnery; communications; and hull, engine and electronics maintenance and repair.

Credit Recommendation: In the vocational certificate category, 6 semester hours in seamanship (7/74).

NV-1723-0001

Machine Tool Operator
(Machine Tool Operations)

Course Number: A-702-0028; L-702-010.

Location: Submarine Training Center, Pacific, Pearl Harbor, HI; Fleet Ballistic Missile Training Center, Charleston, SC; Submarine School, Groton, New London, CT.

Length: 2 weeks (60–72 hours).

Exhibit Dates: 9/66–Present.

Objectives: To provide enlisted personnel with advanced training in the operation of South Bend engine lathes.

Instruction: Lectures and practical exercises in the repair and operation of South Bend engine lathes, including measuring instruments, center drilling, rough turning, tool kit grinding, taper turning, and threading and knurling.

Credit Recommendation: In the vocational certificate category, 2 semester hours in machine shop (4/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in machine shop (4/74).

NV-1723-0002

Machinery Repairmen, Class A

Course Number: A-702-0019.

Location: Service School Command, San Diego, CA.

Length: 12 weeks (360–374 hours).

Exhibit Dates: 10/64–Present.

Objectives: To train enlisted personnel to perform as machinery repairmen.

Instruction: Lectures and practical exercises in machinery repair, including use of hand tools and measuring instruments; principles and applications of blueprint reading; mathematics; portable equipment; machine shop procedures, bench work, and disassembly, repair, assembly, and testing; basic, intermediate, and advanced operations on drilling, shaping, turning, milling, grinding, sawing, and engraving machines; the fabrication of parts and repair of valves, and maintenance management.

Credit Recommendation: In the vocational certificate category, 6 semester hours in machine trades or machinery repair (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in machine trades or machinery repair (5/74); in the upper-division baccalaureate category, 2 semester hours in machine trades or machinery repair (5/74).

NV-1723-0003

Molders, Class B

Course Number: A-790-0011.

Location: Development and Training Center, San Diego, CA.

Length: 12 weeks (360 hours).

Exhibit Dates: 2/65–Present.

Objectives: To train enlisted personnel to identify and test ferrous and nonferrous casting metals, identify and use melting equipment, prepare molds, and cast various ferrous and nonferrous metals.

Instruction: Lectures and practical exercises in preparing molds and casting metals. Topics include mechanical drawings, mathematics and foundry calculations, mold construction, melting equipment, leadership skills, casting-metal metallurgy, identification and testing of metal castings, nonferrous alloy casting technology, and foundry management.

Credit Recommendation: In the vocational certificate category, 6 semester hours in foundry practice (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in foundry practice (6/74).

NV-1723-0004

Patternmaker, Class A

Course Number: A-790-0012.

Location: Patternmakers School, San Diego, CA.

Length: 20 weeks (600–694 hours).

Exhibit Dates: 11/61–Present.

Objectives: To train personnel to perform as patternmakers.

Instruction: Lectures and practical exercises in the functions of patternmakers, including fundamentals of patternmaking; shop math, pattern reproduction, production molding, and mold construction; flanged fittings, molding equipment, and intercasting; surface development; segmental, staved, and lag construction; metal patterns; shell molding; advanced patternmaking; pattern and casting design; pattern machinery operation, maintenance, and safety precautions; and hand and portable power tools.

Credit Recommendation: In the vocational certificate category, 24 semester hours in patternmaking and foundry (6/74); in the lower-division baccalaureate/associate degree category, 15 semester hours in patternmaking and foundry (6/74); in the upper-division baccalaureate category, 6 semester hours in patternmaking and foundry (6/74).

NV-1723-0005

Shipfitters Hull Maintenance Technician, Class A, Phase 2

Course Number: A-700-010.

Location: Training Center, San Diego, CA.

Length: 12 weeks (353 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train enlisted personnel in shipfitting and hull maintenance.

Instruction: Lectures and practical exercises in shipfitting and hull maintenance, including basic tools and materials, basic metallurgy, oxyacetylene welding, silver brazing, braze welding, manual arc welding, sheetmetal layout and fabrication, piping sections layout and fabrication, shipboard piping systems, and environmental pollution control.

Credit Recommendation: In the vocational certificate category, 8 semester hours in sheet metal work and piping (5/74).

NV-1723-0006

Shipfitters, Class A (Metalsmith)

Course Number: Not available.

Location: Training Center, San Diego, CA.

Length: 12 weeks (360 hours).

Exhibit Dates: 5/63–12/68.

Objectives: To train enlisted personnel to be metalsmiths.

Instruction: Lectures and practical exercises in metalsmithy, including shipfitter responsibilities, mathematics, blueprint reading and symbols, tools and materials, metallurgy, welding, brazing and soldering, coppersmithing, and basic metalsmithing.

Credit Recommendation: In the vocational certificate category, 8 semester hours in metalsmithy (5/74).

NV-1723-0007

Steelworker/Sheetmetal, Class C (SW"C" Sheetmetal)

Course Number: A-703-0010.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA; Construction Battalion Center, Davisville, RI.

Length: 6–7 weeks (180–210 hours).

Exhibit Dates: 1/72–Present.

Objectives: To train petty officers to perform as sheet metal technicians.

Instruction: Lectures and practical exercises in sheet metal work and blueprint reading and estimating, including mathematics; blueprint reading, planning, and estimating; sheet metal pattern layout; sheet metal tools and equipment; soldering; sheet metal fabrication and installation; material requisitioning; pattern layout; and duties and responsibilities of the supervisor.

Credit Recommendation: In the vocational certificate category, 4 semester hours in sheet metal (5/74).

NV-1723-0008

Steelworker, Class J (SW"J")

Course Number: A-711-0018.

Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.

Length: 14–15 weeks (420–454 hours).

Exhibit Dates: 9/63–Present.

Objectives: To train personnel to perform as steelworkers with construction battalions.

Instruction: Lectures and practical exercises in the techniques of control and supervision and the materials and tools used in the planning and erection of steel structures, including foremanship, applied mathematics, metal working, oxyacetylene welding, inert-gas welding, and steel erection.

Credit Recommendation: In the vocational certificate category, 9 semester hours in construction and advanced steelwork (7/76).

NV-1723-0009

Steelworkers, Class A

Course Number: A-711-0015.

Location: Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA.

Length: *Version 1:* 9 weeks (265 hours). *Version 2:* 12 weeks (360–361 hours).

Exhibit Dates: *Version 1:* 7/75–Present. *Version 2:* 12/63–6/75.

Objectives: To train enlisted personnel to be steelworkers.

Instruction: *Version 1:* Lectures and practical exercises in erection of steel structures, including basic mathematics, blueprint reading and sketching, sheet metal layout, metal working, and welding. *Version 2:* Topics also include steel erection and rigging.

Credit Recommendation: *Version 1:* In the vocational certificate category, 5 semester hours in construction, basic steelworker (7/76). *Version 2:* In the vocational certificate category, 6 semester hours in construction, basic steelworker (5/74).

NV-1723-0011

Machinery Repairmen, Class B

Course Number: A-702-0020.

Location: Technical Training Command, San Diego, CA.

Length: *Version 1:* 17 weeks (510 hours). *Version 2:* 18 weeks (600 hours).

Exhibit Dates: *Version 1:* 9/72–Present. *Version 2:* 10/64–8/72.

Objectives: To train personnel to serve as machinery repairmen.

Instruction: Lectures and practical exercises in machinery repair. Course includes shop mathematics, interpretation of drawings of machine tool operations on the toolmaker's lathe; turret lathe; surface, tool and universal cylindrical grinders; milling machines and rapid, plane, angular, and differential indexing; the generation and manufacture of spur, helical, bevel, and worm gears, and symmetrical and nonsymmetrical forms; metal spraying; physical metallurgy and plastics; and advanced precision measuring instruments.

Credit Recommendation: *Version 1:* In the vocational certificate category, 10 semester hours in advanced machine shop (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in advanced machine shop (5/74); in the upper-division baccalaureate category, 6 semester hours in advanced machine shop (5/74). *Version 2:* In the vocational certificate category, 10 semester hours in machinery repair, metals, machine technology, and toolmaking (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in machinery repair, metals, machine technology, and toolmaking (5/74); in the upper-division baccalaureate category, 4 semester hours in machinery repair, metals, machine technology, and toolmaking (5/74).

NV-1723-0012

Molders, Class B

Course Number: Not available.

Location: Molders Class B School, San Diego, CA.

Length: 12 weeks (360 hours).

Exhibit Dates: 2/65–Present.

Objectives: To train enlisted personnel to manage a foundry.

Instruction: Lectures and practical exercises in the management of a foundry. Topics include a review of mechanical drawings, mathematics, and foundry calculations; fundamentals of mold construction; melting equipment; leadership; metallurgy of metal casting; identification and testing of metal casting; nonferrous alloy casting technology, and foundry management.

Credit Recommendation: In the vocational certificate category, 10 semester hours in foundry practice and management (7/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in foundry practice and management (7/74).

NV-1724-0001

Heat Treatment of Metals, Class C

Course Number: A-702-0021.

Location: Service Schools Command, San Diego, CA.

Length: 7 weeks (234 hours).

Exhibit Dates: 10/64–Present.

Objectives: To train personnel as heat treatment specialists.

Instruction: Lectures and practical exercises in the heat treatment of metals, including properties of metals, metal alloy systems, identification and classification of metals, corrosion and surface treatment, and maintenance and material management.

Credit Recommendation: In the vocational certificate category, 4 semester hours in physical metallurgy, 4 in heat treating (5/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in physical metallurgy, 4 in heat treating (5/74); in the upper-division baccalaureate category, 4 semester hours in physical metallurgy, 4 in heat treating (5/74).

NV-1724-0002

Nondestructive Testing of Metals

Course Number: A-701-017.

Location: Welding School, Class C, San Diego, CA.

Length: 14–19 weeks (420–665 hours).

Exhibit Dates: 3/65–Present.

Objectives: To train personnel in the nondestructive testing of metals.

Instruction: Lectures and practical exercises in Atomic Energy Commission rules and regulations pertaining to radiography and the safe handling of radioactive byproduct material, and the fundamentals of nondestructive testing, including NDT-related inspections and mathematics; fundamentals of radiation as applied to industrial radiography; radiation control, detection, and measurement; magnetic particle and liquid penetrant testing; ultrasonic testing; and radiographic inspection.

Credit Recommendation: In the vocational certificate category, credit in metals testing on the basis of institutional evaluation (5/74); in the lower-division baccalaureate/associate degree category, credit in metals testing on the basis of institutional evaluation (5/74); in the upper-division baccalaureate category, credit in metals testing on the basis of institutional evaluation (12/68).

NV-1726-0001

SHIP SERVICEMAN/CLASS C/SHIPBOARD BARBER

Course Number: A-840-0012; A-840-0013.
Location: *Version 1:* Service Schools Command, San Diego, CA. *Version 2:* Fleet Training Center, Norfolk, VA.
Length: 4 weeks (140 hours).
Exhibit Dates: 1/73–Present.
Objectives: To train personnel to perform as barbers.
Instruction: Lectures and practical exercises in the organization and management of barbershop operations, including use and maintenance of barbershop equipment, hair cutting, barber tools and equipment, management and operation, skin diseases and prevention, honing and stropping, and neck shaving.
Credit Recommendation: In the vocational certificate category, 4 semester hours in barbering (6/74).

NV-1728-0001

COUNTERINSURGENCY TRAINING

Course Number: G-00-6250; G-000-6250.
Location: Naval Amphibious School, Little Creek, Norfolk, VA.
Length: 3 weeks (205 hours).
Exhibit Dates: 4/68–Present.
Objectives: To train and prepare naval officers and enlisted personnel for duty in countries subject to insurgency warfare. The course presents a geopolitical orientation to a country under wartime conditions, and prepares the individual to survive hostile conditions.
Instruction: Fundamentals of insurgency warfare; counterinsurgency; weapons; techniques of survival, evasion, resistance, and escape.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (11/73).

NV-1728-0002

NAVAL INTERNAL SECURITY FORCE TRAINING

Course Number: H-00-5240; H-000-5240.
Location: Naval Amphibious School, Coronado, San Diego, CA.
Length: 4 weeks (97 hours).
Exhibit Dates: 6/67–Present.
Objectives: To provide training in internal security and counterinsurgency operations, and to provide a basic geopolitical orientation to a specific foreign country.
Instruction: History of insurgent movements; fundamentals of counterinsurgency; communist ideology, organization and goals; general principles of guerilla and counterguerilla operations; naval tactics and techniques which have application in combating insurgent movements; general principles of psychological operations and civil affairs; area and cultural orientation; intelligence and counterintelligence orientation; voice communication procedure; and internal security. Instruction further acquaints student with basic techniques of personal and physical security and qualifies him in areas of physical fitness, marksmanship, and communications skills.
Credit Recommendation: In the vocational certificate category, 3 semester hours in criminal justice (11/73).

NV-1728-0003

COUNTERINSURGENCY PRE-DEPLOYMENT

Course Number: H-00-5221; H-000-5221.
Location: Naval Amphibious School, Coronado, San Diego, CA.
Length: 13 weeks (508 hours).
Exhibit Dates: 1/69–Present.
Objectives: To provide maximum training in internal defense, internal development and insurgency/counterinsurgency to Navy officers and personnel enroute to duty in an advisory capacity or in a billet which will require close operational contact with the indigenous population in a Pacific Ocean Area country where subversive aggression is incipient or in being.
Instruction: Ideologies: theory and application; area studies; insurgency and counterinsurgency; psychological operations; intelligence and counterintelligence; guerilla and counterguerilla warfare; communications; engineering; medical; weapons training; field tactics; survival, evasion, resistance to interrogation, and escape techniques.
Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in Vietnamese language, 9 in criminal justice (11/73).

NV-1728-0004

FIRE FIGHTER INSTRUCTOR COURSE (Firefighting Instructor)

Course Number: A-780-0024; A-780-0025.
Location: Damage Control Training Center, Philadelphia, PA; Damage Control Training Center, Treasure Island, CA.
Length: 4 weeks (128–140 hours).
Exhibit Dates: 1/64–Present.
Objectives: To prepare enlisted personnel as instructors of fire fighters.
Instruction: Lectures and practical experience in the use and care of fire-fighting equipment, fire-fighting techniques, lesson planning, and instructing.
Credit Recommendation: In the vocational certificate category, 4 semester hours in fire fighting (1/74); in the lower-division baccalaureate/associate degree category, 4 semester hours in fire fighting (1/74).

NV-1728-0005

AVIATION BOATSWAIN'S MATE F (FUELS), CLASS A

Course Number: C-821-2010.
Location: Naval Air Technical Training Center, Lakehurst, NJ; Naval Air Technical Training Center, Philadelphia, PA.
Length: 7–8 weeks (280–320 hours).
Exhibit Dates: 4/66–Present.
Objectives: To train enlisted personnel in the specialized techniques of ship fire fighting.
Instruction: Lectures and practical experience in safety, survival, and fire-fighting procedures, fuel and volatile liquid types, inspection and maintenance of transfer systems and shore based refuelers and service unit systems.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74).

NV-1728-0006

AVIATION CRASH CREWMAN CLASS C

Course Number: C-780-2010.
Location: Air Technical Training Center, Memphis, TN.
Length: 4 weeks (160 hours).
Exhibit Dates: 7/64–Present.
Objectives: To train enlisted personnel who have backgrounds in aviation fundamentals to perform as aviation crash crewmen.
Instruction: Lectures and practical exercises in the functions of aviation crash crewmen, including theory of fire and fire extinguishing, aircraft familiarization, mobile fire-fighting equipment, and crash rescue and fire-fighting techniques.
Credit Recommendation: In the vocational certificate category, 3 semester hours in fire fighting (5/74).

NV-1728-0007

SAFETY INSPECTOR CLASS C

Course Number: None.
Location: Naval Schools Construction, Port Hueneme, CA; Naval Schools Construction, Davisville, RI; Naval Schools Construction, Gulfport, MS.
Length: 3 weeks (94 hours).
Exhibit Dates: 5/72–Present.
Objectives: To train enlisted personnel to be safety inspectors in construction battalions.
Instruction: Lectures and practical exercises in naval safety programs and chain of command, safety administrative procedures, safety section organization and functions, transportation and construction equipment safety, power tools and hand tools safety, utilities construction and electrical safety, and steelworker and builder safety.
Credit Recommendation: In the vocational certificate category, 2 semester hours in safety inspection (5/74).

NV-1728-0009

NBC DEFENSE FOR PETTY OFFICERS

Course Number: A-780-0016.
Location: Naval Schools Command, Philadelphia, PA; Naval Schools Command, San Francisco, CA.
Length: 2 weeks.
Exhibit Dates: 10/72–Present.
Objectives: To train personnel in damage control.
Instruction: Lectures and practical exercises in damage control, including damage control organization, access closures and fittings, general degrees and material conditions of readiness, shipboard systems, damage control communications and equipment, oxygen breathing apparatus, portable pumping equipment, plastic repairs, entering sealed compartments, investigation of damage, and planned maintenance system.
Credit Recommendation: Insufficient data for evaluation (5/74).

NV-1728-0011

DAMAGE CONTROL ASSISTANT

Course Number: A-4G-0011; A-4G-0010.
Location: Naval Control Training Center, San Francisco, CA; Naval Control Training Center, Philadelphia, PA.
Length: 9 weeks (266 hours).
Exhibit Dates: 3/71–Present.
Objectives: To train officers to be damage control officers.
Instruction: Lectures in fire prevention and fire-fighting techniques, including extinguishing random fires, shipboard fire prevention, research and development of fire-fighting equipment, operation of oxygen breathing apparatus and other fire-fighting equipment; practical damage control, including underwater damage repair, plugging and patching, ships systems operation and repair procedures, and damage control battle organization; and nuclear, biological, and chemical warfare defense operations.
Credit Recommendation: In the vocational certificate category, 3 semester hours in ships engineering, 1 in fire prevention

(5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in ships engineering, 1 in fire prevention (5/74); in the upper-division baccalaureate category, 3 semester hours in ships engineering (5/74).

NV-1728-0012

Damage Controlmen Class A HT-A Phase I

Course Number: A-780-0035; A-780-0036.
Location: Damage Control Training Center, Philadelphia, PA; Damage Control Training Center, Treasure Island, CA.
Length: 7-8 weeks (240 hours).
Exhibit Dates: 7/70–Present.
Objectives: To train enlisted personnel in damage control techniques.
Instruction: Lectures and practical exercises in hull and hull systems, casualty control, shoring, hull and pipe patching, plastic repairs, fire fighting, basic nuclear physics, characteristics of nuclear bursts, classification and detection of biological and chemical agents, shipboard decontamination, use and care of oxygen breathing equipment.
Credit Recommendation: In the vocational certificate category, 1 semester hour in fire fighting, 3 in damage control (5/74); in the lower-division baccalaureate/associate degree category, 1 semester hour in fire fighting, 3 in damage control (5/74).

NV-1728-0013

Aviation Boatswain's Mate U (Utility), Class A

Course Number: Not available.
Location: Air Material Center, Philadelphia, PA.
Length: 9 weeks (360 hours).
Exhibit Dates: 3/57–2/58.
Objectives: To train boatswain's mates in the use and maintenance of aviation catapults and arresting gear.
Instruction: Lectures and practical exercises on the use and maintenance of catapults and arresting gear, including marlinspike seamanship, wire rope socketing, hydraulics, fundamentals of fire fighting, general information and preventive maintenance of catapult and arresting gear systems.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74).

NV-1728-0014

Aviation Boatswain's Mate H (Aircraft Handling), Class A
(Aviation Boatswain's Mate H (Handling), Class A)

Course Number: C-822-2010.
Location: Air Technical Training Center, Philadelphia, PA; Air Technical Training Center, Lakehurst, NJ.
Length: 7-8 weeks (280 hours).
Exhibit Dates: 6/65–Present.
Objectives: To train enlisted personnel as aviation boatswain's mates.
Instruction: Lectures and practical exercises on aircraft carrier fire fighting, aircraft-handling equipment maintenance, and spotting and handling of aircraft, including survival and emergency equipment, aircraft familiarization and handling, aircraft carrier fire fighting and personnel rescue, aircraft crash fire-fighting procedures and techniques, aircraft crash fire-fighting equipment ashore, and crash fire and rescue drills.
Credit Recommendation: In the vocational certificate category, 4 semester hours in fireman training (6/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in fire science (6/74); in the upper-division baccalaureate category, 2 semester hours in industrial safety and security (6/74).

NV-1728-0015

Military Justice Non-Lawyer

Course Number: A-5F-0014.
Location: Naval Justice School, Newport, RI.
Length: 5 weeks (120-148 hours).
Exhibit Dates: *Version 1:* 8/72–Present. *Version 2:* 3/70–7/72.
Objectives: To train commissioned officers to act as paralegal professionals.
Instruction: Lectures and practical exercises in the duties and skills necessary to act as a paralegal professional in legal and court situations. Course includes court procedures; an in-depth study of criminal, civil, and military law; prosecution and judgemental services; and legal advising.
Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in criminal justice or criminology (7/74). *Version 2:* In the upper-division baccalaureate category, 2 semester hours in political science (12/68).

NV-1728-0016

Military Justice (Lawyer)

Course Number: A-5F-0013.
Location: Naval Justice School, Newport, RI.
Length: 10 weeks (400 hours).
Exhibit Dates: 7/72–Present.
Objectives: To provide lawyers with a basic orientation to military and administrative law.
Instruction: Instruction includes lectures in military and administrative law, criminal procedure, military crimes, and rules of evidence; moot court exercises; and trial clinics and administrative proceedings. Students are required to do some library research.
Credit Recommendation: Undergraduate credit is not recommended because of the professional nature of the course (6/75).

NV-1728-0017

Military Justice (Officers)

Course Number: K-00-2044; K-00-060.
Location: Fleet Training Center, San Diego, CA.
Length: 3 weeks (90 hours).
Exhibit Dates: 2/71–Present.
Objectives: To prepare personnel to perform the duties of a discipline or legal officer.
Instruction: Instruction provides the student with an overview of military justice, including court martial procedure, laws of evidence, court martial punishments, and search and seizure.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in evidence or criminal investigation (6/75).

NV-1729-0001

Food Services and Disbursing

Course Number: None.
Location: Naval Supply Center, Oakland, CA.
Length: 2 weeks (70 hours).
Exhibit Dates: 10/71–Present.
Objectives: To acquaint experienced supply officers with new developments and procedures in food service management.
Instruction: New developments in food service management; review and reinforcement of food service/disbursing management functions.
Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/73).

NV-1729-0002

Commissaryman-Steward Management Principles, Class C

Course Number: A-800-0015; A-800-014; A-800-015.
Location: Naval School, San Diego, CA.
Length: 9 weeks.
Exhibit Dates: 9/71–Present.
Objectives: To provide students with advanced technical knowledge and skills in food services and supervision.
Instruction: Management and administration principles; organization and personnel management; technical aspects; sanitation and nutrition.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 6 semester hours in food service management (12/73); in the upper-division baccalaureate category, 6 semester hours in food service management (12/73).

NV-1729-0003

Commissaryman-Steward, Class C

Course Number: None.
Location: Naval School, San Diego, CA.
Length: 8 weeks (240 hours).
Exhibit Dates: 8/71–Present.
Objectives: To provide trainees with advanced knowledge and skill in food services.
Instruction: Advanced training in food production and baking, with emphasis on fine food and classical cuisine; basic accounting; equipment; sanitation; standard recipes.
Credit Recommendation: In the vocational certificate category, 6 semester hours in hotel-restaurant institutions (12/73); in the lower-division baccalaureate/associate degree category, 6 semester hours in hotel-restaurant institutions (12/73); in the upper-division baccalaureate category, 6 semester hours in hotel-restaurant institutions (12/73).

NV-1729-0004

Commissaryman-Steward, Class A
(Commissaryman Class A)

Course Number: None.
Location: Naval School, Newport, RI; Naval School, San Diego, CA.
Length: 8 weeks (240 hours).
Exhibit Dates: 4/68–Present.
Objectives: To provide enlisted personnel with the technical knowledge and skills required to perform as commissarymen or stewards in food service facilities.
Instruction: Organization of supply department; methods of food service computation; principles of nutrition and their application to menu planning; sanitation and safety precautions; principles, methods, and techniques of cooking and baking.
Credit Recommendation: In the vocational certificate category, 3 semester hours in hotel-restaurant institutions (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel-restaurant institutions (12/73); in the upper-division baccalaureate category, 3 semester hours in hotel-restaurant institutions (12/73).

NV-1729-0005

STEWARDS, CLASS A

Course Number: None.

Location: Naval School, San Diego, CA.

Length: 6-7 weeks (180-210 hours).

Exhibit Dates: 9/62-12/68.

Objectives: To train personnel to cook and serve meals, prepare menus, and maintain records.

Instruction: A basic course in food production principles, covering cooking, baking, menu planning, sanitation, receiving, and storage.

Credit Recommendation: In the vocational certificate category, 3 semester hours in hotel-restaurant institutions (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel-restaurant institutions (12/73); in the upper-division baccalaureate category, 3 semester hours in hotel-restaurant institutions (12/73).

NV-1729-0006

COMMISSARYMEN, CLASS B

Course Number: None.

Location: Naval School, San Diego, CA; Naval School, Bayonne, NJ; Naval School, Newport, RI.

Length: 15 weeks (450 hours).

Exhibit Dates: 5/62-12/68.

Objectives: To prepare food service personnel for supervisory and advanced technical duties.

Instruction: Essentially an advanced volume-food service management course with emphasis on the finer points of cooking, baking, menu planning, purchasing, and management.

Credit Recommendation: In the vocational certificate category, 5 semester hours in hotel-restaurant institutions (12/73); in the lower-division baccalaureate/associate degree category, 3 semester hours in hotel-restaurant institutions (12/73); in the upper-division baccalaureate category, 3 semester hours in hotel-restaurant institutions (12/73).

NV-1729-0007

STEWARD APPRENTICE, CLASS P
(Class P Steward's Apprentice)

Course Number: None.

Location: Naval Training Center, San Diego, CA; Naval School, Great Lakes, IL; Naval School, Bainbridge, MD.

Length: 6 weeks (103 hours).

Exhibit Dates: 3/56-12/68.

Objectives: To train stewards in dining room preparation and individual food service.

Instruction: Lectures and practical exercises in dining room preparation and individual food service, including table setting and meal service; preparation of salads, sandwiches, vegetables, eggs, beverages, and cereals; food storage and preparation precautions; and securing for sea.

Credit Recommendation: In the vocational certificate category, 2 semester hours in catering or food service (6/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in catering or food service (6/74).

NV-1729-0008

STEWARDS
(Commissioned Officers' Mess Closed Mess Management)

Course Number: A-801-015.

Location: Mess Management Training Facility, Patuxent River, MD.

Length: 8 weeks (240 hours).

Exhibit Dates: 6/68-Present.

Objectives: To train stewards to manage mess halls.

Instruction: Lectures and practical exercises in the management of mess halls. Course includes military leadership, mess regulations, mathematics, accounting procedures, sanitation, table and banquet planning and services, nutrition and menu planning, culinary arts, meat, poultry and seafood preparation, and layout and facilities.

Credit Recommendation: In the vocational certificate category, 6 semester hours in food preparation (or 3 in introduction to food service and 3 in catering), 3 in business mathematics, 3 in food and beverage management (8/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in food preparation (or 3 in introduction to food service and 3 in catering), 3 in business mathematics, 3 in food and beverage management (8/74); in the upper-division baccalaureate category, 2 semester hours in food service management (12/68).

NV-1729-0009

MANAGEMENT OF NAVY OPEN MESSES
(Management of officers and Petty Officers' Messes)

Course Number: S-8e-0010; A-8E-010.

Location: Special Services Administrative Activity, Patuxent River, MD; Mess Management Training Facility, Patuxent River, MD.

Length: 4 weeks (120-140 hours).

Exhibit Dates: *Version 1:* 1/77-Present. *Version 2:* 6/66-12/76.

Objectives: To train enlisted personnel and civilians to manage officers' and petty officers' messes.

Instruction: *Version 1:* Instruction includes lectures, audio-visual presentations and practical exercises designed to develop managerial skills needed to successfully operate Navy OPEN Messes. Included are club regulations, accounting, cost controls and personnel procedures. *Version 2:* Lectures and practical exercises in the management of officers' and petty officers' messes. Course includes development of managerial and administrative abilities in relationship to mess and club regulations; accounting, auditing, and cost controls; personnel management and promotion.

Credit Recommendation: *Version 1:* In the vocational certificate category, 4 semester hours in food and beverage management (7/79); in the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to institutional management (7/79). *Version 2:* In the vocational certificate category, 3 semester hours in food and beverage management, and 3 in food and beverage cost controls or 3 in accounting (8/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in food and beverage management, and 3 in food and beverage cost controls or accounting (8/74); in the upper-division baccalaureate category, 3 semester hours in institutional management (12/68).

NV-1730-0001

BASIC REFRIGERATION THEORY AND MAINTENANCE

Course Number: L-652-021.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 2 weeks (60 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train enlisted personnel to operate, test, and repair refrigeration systems.

Instruction: Lectures and practical exercises in basic refrigeration theory and maintenance. Course includes the theory of operation of the vapor-compression refrigeration system; a study of system components; and practice in troubleshooting, servicing, and maintaining small refrigeration systems.

Credit Recommendation: In the vocational certificate category, 2 semester hours in refrigeration maintenance (5/74).

NV-1730-0002

AUXILIARY EQUIPMENT PACKAGE

Course Number: A-652-0043; A-652-0044.

Location: *Version 1:* Submarine School, Groton, CT. *Version 2:* Submarine Training Center, Pearl Harbor, HI.

Length: 10 weeks (318 hours).

Exhibit Dates: 5/72-Present.

Objectives: To train enlisted personnel to operate and service refrigeration equipment, pumps, and air compressors.

Instruction: Lectures and practical exercises in maintaining and servicing refrigeration equipment. Course includes pumps, air compressors, and hydraulic and pneumatic systems.

Credit Recommendation: In the vocational certificate category, 3 semester hours in refrigeration systems—operation and servicing (5/74).

NV-1730-0003

SUBMARINE REFRIGERATION AND AIR CONDITIONING R-12

Course Number: F-652-014.

Location: Submarine School, Groton, CT.

Length: 2 weeks (60 hours).

Exhibit Dates: 3/68-Present.

Objectives: To train enlisted personnel to maintain and service large refrigeration systems.

Instruction: Lectures and practical exercises in the maintenance of large refrigeration units. Topics include system components, troubleshooting, and the general construction, operation, and servicing of large refrigeration systems employing reciprocating compressors.

Credit Recommendation: In the vocational certificate category, 2 semester hours in mechanical servicing of refrigeration systems (5/74).

NV-1730-0004

SUBMARINE (SSN/SSBN) AUXILIARY MACHINERY OPERATION AND MAINTENANCE

Course Number: F-652-010.

Location: Fleet Training Group, Pearl Harbor, HI; Submarine School, Groton, CT; Mine Warfare Training Center, Charleston, SC.

Length: 10 weeks (300 hours).

Exhibit Dates: 8/70-Present.

Objectives: To train enlisted personnel to maintain and service refrigeration systems containing reciprocating or centrifugal compressors, and lithium-bromide absorption units.

Instruction: Lectures and practical exercises in the maintenance and operation of refrigeration systems. Course includes the mechanical aspects of the construction and operation of refrigeration systems employing reciprocating or centrifugal compressors, lithium-bromide absorption systems, hydraulic systems, and air compressors. Instruction emphasizes system components, troubleshooting, and service procedures.

Credit Recommendation: In the vocational certificate category, 6 semester hours in refrigeration equipment, mechanical service, and maintenance (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in refrigeration equipment, mechanical service, and maintenance (7/74).

NV-1730-0005

C-2A Environmental Systems Organizational Maintenance

Course Number: Not available.

Location: Air Maintenance Training Detachment, North Island, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/69–Present.

Objectives: To train enlisted personnel to maintain the C-2A air conditioning and pressurization systems.

Instruction: Lectures and practical exercises in C-2A air conditioning and pressurization systems maintenance, including air conditioning and pressurization fundamentals, utility and survival systems, emergency equipment, and system operation and maintenance procedures.

Credit Recommendation: In the vocational certificate category, 3 semester hours in refrigeration laboratory (7/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in refrigeration laboratory (7/74).

NV-1730-0006

Refrigerant 11 Air Conditioning
(Air Conditioning Refrigerant 11)

Course Number: L-652-0010; L-652-010.

Location: Fleet Submarine Training Facility, Pearl Harbor, HI.

Length: 2 weeks (62 hours).

Exhibit Dates: 5/67–Present.

Objectives: To provide maintenance training to enable the trainee to understand required R-11 compressor operation, maintenance and troubleshooting, to include associated auxiliary equipment and safety problems.

Instruction: Provides instruction in the components and functions of mechanical systems, principles of operation and safety precautions. Training covers the operation, disassembly, reassembly, maintenance, and troubleshooting of the R-11 unit.

Credit Recommendation: In the vocational certificate category, 2 semester hours in mechanical servicing of refrigeration systems (6/77).

NV-1732-0001

Steam Generating Plant Inspector

Course Number: A-651-0030; A-651-022.

Location: Destroyer School, Newport, RI.

Length: 4 weeks (120 hours).

Exhibit Dates: 12/69–Present.

Objectives: To train enlisted personnel to perform as steam generating plant inspectors.

Instruction: Lectures and practical exercises on steam generating plants, including salient design features of naval boilers, tube ruptures and renewal, casing and foundation, pressure parts not exposed to firesides, hydro tests, safety valves, boiler inspection, boiler chemistry, and steam generator performance during steady load.

Credit Recommendation: In the vocational certificate category, 3 semester hours in boiler inspection (5/74).

NV-1732-0002

Basic Nuclear Power

Course Number: Not available.

Location: Submarine School, Mare Island, CA; Submarine School, New London, CT; Submarine School, Bainbridge, MD.

Length: 22 weeks (555–650 hours).

Exhibit Dates: 7/56–Present.

Objectives: To train enlisted personnel in nuclear power plant theory and operation.

Instruction: Lectures and practical exercises in nuclear power plant theory and operation, including basic mathematics (algebra, trigonometry, and introduction to calculus); modern physics; reactor principles; thermodynamics; water technology; nuclear power plant systems and components; health physics; and one or more courses in welding, chemistry, machine tool operation, electronics, or electrical machinery. Note: When this course was established in the mid-1950's, the office was able to obtain the curriculum outline from the Department of the Navy and have it evaluated. The recommendation for the program as it was given until 1961 is provided below. However, by 1961, the course was changed and the curriculum appeared to have been substantially strengthened, although the course materials were classified for military security reasons and could not be evaluated. Nevertheless, the course as it has been offered since 1961 is considered to be academically stronger than the earlier program. Inasmuch as the credit listed below is recommended for the course as given prior to 1961, institutions would be justified in granting that amount of credit plus additional credit as determined by institutional evaluation.

Credit Recommendation: In the vocational certificate category, 12 semester hours in nuclear power plant operation (see Note above) (5/74); in the lower-division baccalaureate/associate degree category, 6 semester hours in nuclear engineering technology (see Note above) (5/74); in the upper-division baccalaureate category, 3 semester hours in introductory atomic physics or nuclear technology (see Note above) (12/68).

NV-1732-0003

Advanced Nuclear Power

Course Number: Not available.

Location: Submarine School, Mare Island, CA; Submarine School, New London, CT; Submarine School, Bainbridge, MD.

Length: 22 weeks (650–690 hours).

Exhibit Dates: 7/56–Present.

Objectives: To train officers in nuclear reactor engineering theory and nuclear reactor power plant system operation.

Instruction: Lectures and practical exercises in advanced mathematics, atomic and nuclear physics, reactor engineering, servomechanisms, reactor and power plant control theory, metallurgy, thermodynamics, nuclear power plant systems and components, reactor control systems and components, and health physics. Note: When this course was established in the mid-1950's, the office was able to obtain the curriculum outline from the Department of the Navy and have it evaluated. The recommendation for the program as it was given until 1961 is provided below. However, by 1961, the course was changed and the curriculum appeared to have been substantially strengthened, although the course materials were classified for military security reasons and could not be evaluated. Nevertheless, the course as it has been offered since 1961 is considered to be academically stronger than the earlier program. Inasmuch as the credit listed below is recommended for the course as given prior to 1961, institutions would be justified in granting that amount of credit plus additional credit as determined by institutional evaluation.

Credit Recommendation: In the vocational certificate category, 16 semester hours in nuclear power plant operation (see Note above) (5/74); in the lower-division baccalaureate/associate degree category, 8 semester hours in nuclear engineering technology (see Note above) (5/74); in the upper-division baccalaureate category, 3 semester hours in reactor engineering (see Note above) (12/68).

NV-1732-0005

DATC Machinist's Mate Maintenance
(600 PSI MM Maintenance)

Course Number: A-651-0024.

Location: Training Center, San Diego, CA.

Length: 3 weeks (105 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train machinist's mates and boilermen in the maintenance and repair of main propulsion machinery and its auxiliaries.

Instruction: Lectures and practical exercises in the maintenance and repair of main propulsion machinery and its auxiliaries, including the operation and theory of these systems, blueprints and micrometers, valve repair, steam traps, main turbines and reduction gears, flexible couplings, auxiliary turbines, main feed pump, centrifugal and reciprocating pumps, deaerating feed tank, high- and low-pressure air compressors, lubricating oil pumps, and lube oil purifier.

Credit Recommendation: In the vocational certificate category, 2 semester hours in maintenance machinist or power plant technology (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in maintenance machinist or power plant technology (5/74); in the upper-division baccalaureate category, 2 semester hours in maintenance machinist or power plant technology (5/74).

NV-1732-0006

Utilitiesman, Class A1 (UT"A")

Course Number: A-720-0012; A-720-0016.

Location: *All Versions:* Construction Training Center, Gulfport, MS; Construction Training Center, Port Hueneme, CA. *Version 2:* Construction School, Davisville, RI.

Length: *Version 1:* 11–14 weeks (331–420 hours). *Version 2:* 12 weeks (368 hours).

Exhibit Dates: *Version 1:* 1/72–Present. *Version 2:* 6/57–12/71.

Objectives: To train enlisted personnel to be utilities men.

Instruction: Lectures and practical exercises in utilities operation, including plumbing, field sanitation, internal combustion engines, pumps, compressors, water treatment, refrigeration, and boiler operation.

Credit Recommendation: *Version 1:* In the vocational certificate category, 8 semester hours in utilities (7/76); in the lower-division baccalaureate/associate degree category, 2 semester hours in utilities (7/76). *Version 2:* In the vocational certificate category, 9 semester hours in theory of water purification (5/74); in the lower-division baccalaureate/associate degree category, 2 semester hours in theory of water purification (5/74); in the upper-division baccalaureate category, 2 semester hours in theory of water purification (12/68).

NV-1733-0001

Parachute Rigger (Survival), Class A

Course Number: Not available.
Location: Air Technical Training Center, Lakehurst, NJ.
Length: 10 weeks (400 hours).
Exhibit Dates: 3/56–7/65.
Objectives: To train enlisted personnel to perform as parachute riggers (survival).
Instruction: Lectures and practical exercises in parachute rigging, construction, and repair, including nomenclature, inspection, packing, testing, and maintenance of service parachutes; descent techniques; fleet-type sewing machine operation; use of all dropable air-sea rescue and personal and fixed-aviation survival equipment; and land and sea survival techniques.
Credit Recommendation: In the vocational certificate category, 4 semester hours in aeronautical technology, 2 in sewing machines and fabrics (5/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in aeronautical technology (5/74).

NV-1736-0001

Builder/Millworker, Class C
(BU"C" Millworker)

Course Number: A-712-0011.
Location: Construction Training Center, Port Hueneme, CA; Construction Training Center, Gulfport, MS; Construction School, Davisville, RI.
Length: 6–9 weeks (180–275 hours).
Exhibit Dates: 11/70–Present.
Objectives: To provide advanced instruction in the methods of millwork.
Instruction: Lectures and practical exercises in advanced rough-lumber manufacturing, including the manufacturing of doors, windows, finish stalls, and various types of trim; operation and operator maintenance of millworking machines; the preparation of jigs for precutting and prefabrication of mass-produced items such as rafters and trusses; shop layout, planning, and estimation; and furniture and cabinet construction.
Credit Recommendation: In the vocational certificate category, 4 semester hours in millwork (7/76).

NV-2202-0001

Carrier Fixed Wing Antisubmarine (AASW) Warfare Tactics

Course Number: E-2D-056.
Location: Fleet Aviation Specialized Operational Training Group, Pacific, San Diego, CA.
Length: 3 weeks (105 hours).
Exhibit Dates: 5/72–Present.
Objectives: To instruct Naval officers in basic oceanography and antisubmarine warfare tactical procedures.
Instruction: Instruction covers basic oceanography and antisubmarine warfare, with specific emphasis on tactical procedures utilized in the employment of carrier fixed-wing antisubmarine warfare systems.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/76).

NV-2202-0002

Navy Sniper Training

Course Number: H-000-1900.
Location: Inshore Operations Training Center, Cp. Roberts, CA.
Length: 3 weeks (124 hours).
Exhibit Dates: 1/70–Present.
Objectives: To train highly skilled riflemen to perform as snipers from river assault and river patrol boats.
Instruction: Lectures and practical exercises in sniper orientation, sniper equipment, marksmanship, and field tactics.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0003

Nurse Corps Indoctrination

Course Number: A-00-0053; A-00-4602.
Location: Women Officers School, Newport, RI.
Length: 4 weeks (173 hours).
Exhibit Dates: 3/72–Present.
Objectives: To provide commissioned officers in the nurse corps with military orientation.
Instruction: Lectures in personnel administration; leadership; the naval medical department; legal aspects of military nursing; physical education; personal grooming; and naval history, customs, and traditions.
Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel administration and management (2/74); in the upper-division baccalaureate category, 2 semester hours in personnel administration and management (2/74).

NV-2202-0004

Medical Officer Indoctrination

Course Number: None.
Location: Officer Indoctrination School, Newport, RI.
Length: 3 weeks (105 hours).
Exhibit Dates: 5/70–Present.
Objectives: To teach the student basic naval subjects to prepare him to assume the duties of a shipboard medical officer.
Instruction: Lectures on Navy organization, national security, general administration, and fleet familiarization.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/72).

NV-2202-0005

Amphibious Command Indoctrination

Course Number: G-2E-6303.
Location: Amphibious School, Norfolk, VA.
Length: 2–4 weeks (74–164 hours).
Exhibit Dates: 5/69–Present.
Objectives: To orient or refresh commanding officers, executive officers, and senior staff officers of amphibious ships in the organization and functions of amphibious forces.
Instruction: Lectures and practical exercises in operations, planning, readiness training, communications, engineering, weather conditions, and command and staff responsibilities.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0006

Amphibious Tactical Air Control Party
(Tactical Air Control Party)

Course Number: G-2G-4314; G-2G-6432; H-2G-5421; H-2G-3621.
Location: Naval Amphibious School, Norfolk, VA; Naval Amphibious School, San Diego, CA.
Length: 3 weeks (96–106 hours).
Exhibit Dates: 1/66–Present.
Objectives: To train officers to control and coordinate tactical air support.
Instruction: Procedures of tactical air support planning and request; techniques of forward air controlling; helicopter planning and employment; and practical field exercises.
Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

NV-2202-0007

Naval Preparatory School

Course Number: None.
Location: Naval Training Center, Bainbridge, MD; Naval Training Center, San Diego, CA.
Length: 9 weeks.
Exhibit Dates: 1/69–Present.
Objectives: To provide prospective engineering and science students with a college-preparatory course in mathematics and English.
Instruction: Lectures and practical exercises in English grammer and syntax; techniques of improving written and oral expression; algebra, trigonometry, analytical geometry; calculus; and chemistry and physics.
Credit Recommendation: Credit is not recommended because of the college preparatory nature of the course (1/74).

NV-2202-0008

Rotary Wing Antisubmarine Warfare Tactics

Course Number: E-2C-012.
Location: Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.
Length: 3 weeks (102 hours).
Exhibit Dates: 2/71–Present.
Objectives: To instruct Naval aviators in antisubmarine warfare tactical procedures and general oceanography as applied to antisubmarine warfare acoustic sensors.
Instruction: Instruction covers oceanography and antisubmarine warfare, with specific emphasis on tactical procedures utilized in the employment of helicopter antisubmarine warfare systems.
Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the course (5/76).

NV-2202-0009

Torpedo Tube Mk 65 Basic Maintenance

Course Number: A-123-0157.
Location: Submarine School, New London, CT; Fleet Ballistic Missile School, Charleston, SC; Submarine Training Center, Pacific, Pearl Harbor, HI.
Length: 6/76 weeks (Present hours).
Exhibit Dates: 2–60.
Objectives: To provide the theory and skills required to perform organizational maintenance of the Mk 65 torpedo tube (all models) aboard operating submarines.
Instruction: Course is largely descriptive involving the maintenance of torpedo tubes, including air hydraulic and ejection systems, safety precautions, loading and firing procedures; actual tube line up and firing are accomplished.
Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (9/77).

NV-2202-0010

VIETNAM ORIENTATION

Course Number: None.

Location: Amphibious School, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To provide personnel with a broad overview of the military, political, social, and economic policies of South Vietnam.

Instruction: Geographical, historical, and cultural aspects of South Vietnam; weapons, survival, and medical training; communications; defense planning; logistics; methods of insurgency and counterinsurgency; administrative organization.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (1/74).

NV-2202-0011

VIETNAM ORIENTATION

Course Number: A-011-0014.

Location: Amphibious School, San Diego, CA.

Length: 3 weeks (110 hours).

Exhibit Dates: 11/72–Present.

Objectives: To provide personnel with a broad overview of the military, political, social, and economic situation in South Vietnam.

Instruction: Nature of the Vietnam conflict; national objectives and strategies in Southeast Asia; U.S. Navy role in Southeast Asia; Vietnamese geographical, historical, and cultural introduction; weapons; medical and survival training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

NV-2202-0012

SONAR WATCH SUPERVISOR AND ADVANCED WATCHSTANDER TRAINING

Course Number: F-210-011.

Location: Submarine School, Groton, CT.

Length: 2 weeks (54 hours).

Exhibit Dates: 11/72–Present.

Objectives: To provide experienced watch supervisors or prospective watch supervisors with advanced training in passive sonar contact procedures.

Instruction: Foreign patrol craft and warship acoustic analysis; foreign diesel and nuclear submarines; sonar identification and classification translation; radio and sonar filter operation.

Credit Recommendation: In the vocational certificate category, 1 semester hour in electronics (1/74).

NV-2202-0013

SUBMARINE OFFICERS ADVANCED

Course Number: A-2E-0030.

Location: Submarine School, Groton, CT.

Length: 24 weeks (752 hours).

Exhibit Dates: 7/71–Present.

Objectives: To train selected junior officers in the technical and administrative management of nuclear submarines.

Instruction: Procedures of shipboard management and administration; electronic equipment techniques; foreign naval weapons systems; navigational skills; naval communications; principles of electronic warfare.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management and administration, 3 in electrical engineering (1/74); in the upper-division baccalaureate category, 3 semester hours in personnel management and administration, 3 in electrical engineering (1/74).

NV-2202-0014

BASIC MILITARY TRAINING (Recruit Training)

Course Number: None.

Location: Recruit Training Command, San Diego, CA; Recruit Training Command, Great Lakes, IL; Recruit Training Command, Orlando, FL.

Length: 7–8 weeks (265–267 hours).

Exhibit Dates: 12/79–Present.

Objectives: To assimilate recruits into the Navy way of life and to prepare them for further advanced training in specialized Navy occupations.

Instruction: Student will receive indoctrination and physical conditioning to prepare for the rigors and unique demands of naval service. Observance of naval customs and traditions will be taught in a manner to foster pride in the nation and in patriotic behavior, high standards of conduct, and respect for civilian and military authority.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 1 semester hour in personal fitness/conditioning, 1 in personal/community health, 2 in first aid and safety (10/79).

NV-2202-0015

A-6A CONVENTIONAL WEAPONS

Course Number: None.

Location: Naval Air Maintenance Training Group, Oceana, VA; Naval Air Maintenance Training Group, Whidbey Island, WA.

Length: 2 weeks (80 hours).

Exhibit Dates: 4/71–Present.

Objectives: To provide ordnance personnel with a broad understanding of suspension and launching equipment and conventional weaponry.

Instruction: Aircraft familiarization; assembly, installation, and disassembly procedures for conventional weapons; safety features and procedures for conventional weapons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

NV-2202-0016

WARRANT OFFICER (WO) AVIATION INDOCTRINATION

Course Number: None.

Location: Naval Air Basic Training Command, Pensacola, FL.

Length: 6–8 weeks (213–300 hours).

Exhibit Dates: 6/65–Present.

Objectives: To train warrant officers to perform managerial and supervisory functions in the aviation field.

Instruction: Lectures in the basic principles of management, including human relations, personnel management, basic psychology, world affairs, effective written and oral communication, military justice, and military organization.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in naval science (12/68).

NV-2202-0017

SURFACE EXPLOSIVE ORDNANCE DISPOSAL BASIC

Course Number: A-4E-0022; A-431-0012.

Location: Naval School, Indian Head, MD.

Length: 12 weeks (440 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train military personnel of all branch services in the techniques of explosive ordnance disposal.

Instruction: Basic electricity; elementary physics; demolition procedures; identification operation; munitions procedures; operation, render-safe, and disposal procedures; identification and reporting of underwater explosive ordnance.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in metallurgical engineering (1/74).

NV-2202-0018

UDT-SEAL EXPLOSIVE ORDNANCE DISPOSAL INDOCTRINATION

Course Number: A-431-0023.

Location: Naval School, Indian Head, MD.

Length: 5 weeks (175 hours).

Exhibit Dates: 10/72–Present.

Objectives: To provide naval personnel with the skills necessary to recognize, evaluate, recover, and dispose of conventional ordnance and explosives.

Instruction: Basic physics and principles of electricity; fuze operation; characteristics and methods of disposal of explosive fillers; procedures of explosive demolition; identification and classification of placed, projected, and dropped munitions.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

NV-2202-0019

EXPLOSIVE ORDNANCE DISPOSAL—RESERVE OFFICER TRAINING

Course Number: A-4E-0045.

Location: Naval School, Indian Head, MD.

Length: 2 weeks (75 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train naval reserve officers in the procedures for recovering, evaluating, and disposing of non-nuclear explosive ordnance.

Instruction: Underwater ordnance and principles of operation; performance of requalification dives and swims; principles of explosive ordnance disposal reconnaissance; methods of munitions projection; hazards, precautions, and disposal procedures for dropped munitions; type, employment, and operation of guided missiles.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (1/74).

NV-2202-0020

EXPLOSIVE ORDNANCE DISPOSAL NAVY BASIC

Course Number: None.

Location: Naval School, Indian Head, MD.

Length: 10 weeks (328 hours).

Exhibit Dates: 8/72–Present.

Objectives: To train naval personnel to recover, evaluate, render safe, and dispose of underwater explosive ordnance.

Instruction: Lectures in the theory, concepts, and operations of torpedoes, exploders, and mines; requalification exercises in open and semi-closed circuit scuba.

Credit Recommendation: In the vocational certificate category, 6 semester hours in ordnance engineering (1/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in ordnance engineering (1/74); in the upper-division baccalaureate category, 3 semester hours in ordnance engineering (1/74).

NV-2202-0021

AVIATION ANTISUBMARINE WARFARE (AASW) FOR SECOND TOUR PILOTS, P-3C

Course Number: E-2D-0071; E-2D-071.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2-3 weeks (77-91 hours).

Exhibit Dates: 9/72-Present.

Objectives: To provide experienced Naval aviators with supplementary training to prepare them for duty in the Pacific.

Instruction: Training includes oceanography and underwater acoustics, aviation antisubmarine warfare tactical procedures, a basic knowledge of aviation antisubmarine warfare sensors and associated equipment, and familiarization with current electronic warfare concepts, capabilities, limitations, and requirements.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/76).

NV-2202-0022

FLEET OFFICER AND FLEET ENLISTED AIR INTELLIGENCE

Course Number: None.

Location: Operational Intelligence Training, Alameda, CA.

Length: 6 weeks (199 hours).

Exhibit Dates: 3/72-Present.

Objectives: To train military personnel in the operational aspects of air intelligence.

Instruction: Administrative and functional aspects of security; classified accounting procedures and methods ; management and handling of classified material; meteorology; map and chart reading; procedures of NON-IOIC data base; terminology, types and operations of nuclear weapons; radar characteristics; photography; Sino-Soviet air defense systems; stereoscopy.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0023

FLEET AIR INTELLIGENCE OFFICER

Course Number: K-3A-5002; K-3A-516.

Location: Fleet Operational Intelligence Training Center, San Diego, CA.

Length: 3 weeks (152 hours).

Exhibit Dates: 2/70-Present.

Objectives: To train Navy and Marine Corps officers in the operational aspects of air intelligence.

Instruction: Lectures on fundamentals of intelligence; recognition and capabilities of Eurasian-communist weapons systems; practical intelligence work and briefs; radar and weapons employment; imagery interpretation and photography; geopolitical topics; and intelligence requirements and reporting.

Credit Recommendation: In the vocational certificate category, 1 semester hour in photographic interpretation (1/74).

NV-2202-0024

CVA/CVS AIR LAUNCHED WEAPONS GENERAL ORDNANCE

Course Number: None.

Location: Navy Military Training Detachment, Jacksonville, FL; Navy Military Training Detachment, Norfolk, VA; Navy Military Training Detachment, Alameda, CA; Navy Military Training Detachment, North Island, CA.

Length: 3 weeks (120 hours).

Exhibit Dates: 1/71-Present.

Objectives: To teach weapon handlers assigned to aircraft carriers the procedures and safety precautions of air launched weapons handling.

Instruction: Lectures and practical exercises in basic carrier operation, ammunition handling, pyrotechnics, aircraft munitions, and air launched missiles.

Credit Recommendation: In the vocational certificate category, 3 semester hours in explosives handling (2/74).

NV-2202-0025

BATTALION STAFF OFFICERS (AMPHIBIOUS PLANNING)

Course Number: G-2E-4231.

Location: Amphibious Base, Little Creek, VA.

Length: 2 weeks (77 hours).

Exhibit Dates: 12/71-Present.

Objectives: To train U.S. and foreign armed forces officers and staff noncommissioned officers to function effectively as members of a battalion executive staff in amphibious environments.

Instruction: Lectures on amphibious operations; organization for combat; organization and functioning of battalion staff; the sequence of command and staff action; and principles of intelligence, operations, logistics, embarkation, supporting arms, and communications.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0026

1. JUMPMASTER NAVAL PARACHUTIST, CLASS C1
2. NAVAL JUMPMASTER CLASS C

Course Number: C-602-2022.

Location: Naval Air Technical Training Center, Lakehurst, NJ.

Length: *Version 1:* Self-paced 3 weeks (120 hours). *Version 2:* 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 5/74-Present. *Version 2:* 5/69-4/74.

Objectives: To train Navy and Marine Corps personnel to safely and efficiently organize and conduct parachute operations.

Instruction: Lectures and practical exercises in theory of parachuting; organization and direction of parachute jumping; jumpmaster equipment; maps and photos; communications; and parachute operations, including day, night, land, and water jumps.

Credit Recommendation: In the vocational certificate category, 1 semester hour in parachuting (2/74).

NV-2202-0027

SURFACE WARFARE OFFICER SCHOOL

Course Number: None.

Location: Surface Warfare Officer School, Newport, RI.

Length: 6 weeks (202 hours).

Exhibit Dates: 11/71-Present.

Objectives: To provide instruction for surface line officers in division officer and watch-standing duties.

Instruction: Lectures and practical exercises in administration and organization, shipboard damage control, watch standing, seamanship, engineering, ship handling.

Credit Recommendation: In the vocational certificate category, 3 semester hours in personnel management and administration (2/74); in the lower-division baccalaureate/associate degree category, 3 semester hours in personnel management and administration (2/74); in the upper-division baccalaureate category, 3 semester hours in personnel management and adminstration (2/74).

NV-2202-0028

GUN FIRE CONTROL SYSTEM (GFCS) MK 63 MAINTENANCE

Course Number: K-113-2074.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72-Present.

Objectives: To prepare fire control technicians and designated strikers to maintain the Mark 63 Gunfire Control System (GFCS Mk 63).

Instruction: Lectures on the description and operation of GFCS Mk 63 and practical exercises in checks and adjustments in the maintenance of GFCS Mk 63.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0029

BASIC ENLISTED SUBMARINE

Course Number: A-060-0011; F-000-010.

Location: Submarine School, Groton, CT.

Length: 6-8 weeks (165-236 hours).

Exhibit Dates: 10/67-Present.

Objectives: To prepare enlisted personnel for assignment to an operational submarine.

Instruction: Lectures and practical experience in standard submarine organization and regulations, systems and principles of submarine operation, safety and escape tank training, and interior communications.

Credit Recommendation: In the vocational certificate category, credit in submarine operations on the basis of institutional evaluation (2/74).

NV-2202-0030

1. BASIC NAVAL PARACHUTIST, CLASS C1
2. BASIC NAVAL PARACHUTIST COURSE, NP-1 CLASS C

(Naval Parachutist, Basic, Class C)

Course Number: C-602-2020.

Location: Air Technical Training Center, Lakehurst, NJ.

Length: *Version 1:* Self-paced 3 weeks (120 hours). *Version 2:* 2 weeks (80 hours).

Exhibit Dates: *Version 1:* 5/74-Present. *Version 2:* 5/69-4/74.

Objectives: To train military personnel to become qualified parachutists.

Instruction: Lectures and practical exercises in the history of parachuting; aircraft procedures; canopy control; and pre-jump, during-jump, and post-jump procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0031

AMPHIBIOUS PLANNING

Course Number: G-2G-6510; H-2G-5212.

Location: Amphibious Schools, Norfolk, VA; Amphibious Schools, San Diego, CA.

Length: 2 weeks (73 hours).

Exhibit Dates: 1/71–Present.

Objectives: To provide officers with the knowledge and skills necessary to plan amphibious operations.

Instruction: Lectures and practical exercises in planning amphibious operations, including ship-to-shore movement, intelligence, communications, and general military planning procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0032

Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D)

(AASW for Second Tour Pilots, P3A/B(D))

Course Number: E-2D-065.

Location: Fleet Aviation Specialized Operational Training Group, Moffett Field, CA.

Length: 3 weeks (115 hours).

Exhibit Dates: 9/72–Present.

Objectives: To provide experienced naval aviators with supplementary training to prepare them for duty in the Pacific.

Instruction: Lectures and practical demonstrations in oceanography, underwater acoustics, aircraft sensors, and airborne antisubmarine warfare tactics.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0033

Aviation Officer Candidate

Course Number: None.

Location: Air Basic Training Command, Pensacola, FL.

Length: *Version 1:* 16 weeks (440 hours). *Version 2:* 11–16 weeks (404–489 hours).

Exhibit Dates: *Version 1:* 1/69–Present. *Version 2:* 3/66–12/68.

Objectives: To train military personnel to be aviation officers.

Instruction: Lectures in naval history, orientation to naval careers, world affairs, physics and mathematics, engineering, aerodynamics, aviation physiology, navigation and seamanship, physical fitness and swimming, and applied leadership training.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 12 semester hours in naval science (2/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in naval science (12/68).

NV-2202-0034

Light Airborne Multipurpose System (LAMPS) Operator

(Light Airborne Multipurpose System (LAMPS) Sensor Operator)

Course Number: *Version 1:* E-210-0057. *Version 2:* E-210-57.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, San Diego, CA; Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.

Length: 2–6 weeks (78–192 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel in passive/active acoustic and nonacoustic sensor operation in a light airborne multipurpose system squadron.

Instruction: Lectures and practical exercises in passive/active acoustic and nonacoustic sensor operation, basic localization techniques, RADAR/MAD operation, and aural interpretation.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-2202-0035

Light Airborne Multipurpose System (LAMPS) Tactics

Course Number: E-2C-013.

Location: Fleet Airborne Electronics Training Unit, Pacific, San Diego, CA.

Length: 3 weeks (103 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train officers in basic oceanography and tactical procedures.

Instruction: Lectures include basic oceanography, antisubmarine warfare, and antiship missile defense, with emphasis on current tactical procedures used by light airborne multipurpose system squadrons.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-2202-0036

Airborne Early Warning, Class O

Course Number: None.

Location: Air Technical Training Center, Glynco, GA.

Length: 7 weeks (280 hours).

Exhibit Dates: 2/68–Present.

Objectives: To provide flight officers with training in airborne early warning systems.

Instruction: Lectures on fleet organization, avionics equipment, navigational problems, airborne early warning and antisubmarine warfare systems, and basic air control; simulated training in anti-air warfare; and flight training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (3/74)

NV-2202-0037

Shore Fire Control Party

Course Number: G-041-6436.

Location: Amphibious School, Little Creek, Norfolk, VA.

Length: 3 weeks (117–121 hours).

Exhibit Dates: 4/68–Present.

Objectives: To train enlisted personnel in the duties of shore fire control party men.

Instruction: Lectures and practical exercises in communications, map reading, fire support ships and ammunition, naval gunfire spotting, and simulated firing training.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-2202-0038

Basic CIC Techniques for Enlisted Personnel

Course Number: K-221-0019.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA.

Length: 3 weeks (88 hours).

Exhibit Dates: 2/72–Present.

Objectives: To teach enlisted personnel basic counterintelligence communications (CIC) techniques.

Instruction: Lectures and practical exercises in basic CIC techniques, including concepts of CIC, radiotelephone nets and radiotelephone procedures, allied naval signal book, internal communications and sound-powered telephone procedures, basic principles of radar, maneuvering-board fundamentals, CIC plots, DRT check-out, plotting procedures, radar assisted piloting, basic tactics, single-line and circular formations and associated maneuvers, and types of screens and screen maneuvers.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (3/74).

NV-2202-0039

VS CRAG Enlisted Aircrewman ASW Indoctrination and Equipments

Course Number: D-050-011.

Location: Fleet Airborne Electrician Training Unit, Atlantic, Norfolk, VA.

Length: 5 weeks (150 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To train VS aircrew personnel to operate ASW equipment.

Instruction: Lectures in ASW organization, submarine characteristics and operating procedures; radar, ECM, and Jezebel operator techniques and duties; MAD, AQA-1, and Julie operator techniques and duties; and tactical display and navigational equipment introduction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0040

VP CRAG Pilot ASW Indoctrination, Equipments and Tactics

Course Number: D-2A-011.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 6 weeks (150 hours).

Exhibit Dates: 1/66–12/68.

Objectives: To train CRAG pilots to operate the VP aircraft weapons systems.

Instruction: Lectures and synthetic trainer exercises in submarine operating characteristics; various search techniques, including radar, ECM, Jezebel, SOSUS, visual search, exhaust trail indicator equipment and tactics, and search planning and execution; operational, intelligence, and contact reporting; localization tactics and equipment; and VP aircraft weapons system, including tactical navigational equipment, tactical plotting, and ASA-16 capabilities, operation, and limitations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (4/74)

NV-2202-0041

P3A/B VP Readiness Tactical Coordinator

(VP CRAG Tactical Coordinator ASW Indoctrination, Equipments and Tactics)

Course Number: D-2D-0010; D-2D-010.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 7 weeks (210–235 hours).

Exhibit Dates: 1/66–Present.

Objectives: To train VP CRAG tactical coordinators in the operation, capabilities, limitations, and tactical applications of VP aircraft.

Instruction: Lectures in VP weapons system introduction; detection and contact classification theory; visual search techniques; radar characteristics, equipment, and tactics; and various weapons system equipment operation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0042

ASW TACTICS—VS PILOT/NAVAL FLIGHT OFFICER

(VS CRAG Pilot ASW Indoctrination, Equipments, and Tactics—S-2E Aircraft)

Course Number: D-2A-0013; D-2A-013.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 5-6 weeks (150-187 hours).

Exhibit Dates: 1/66-Present.

Objectives: To train pilots to operate the S-2E weapons system.

Instruction: Lectures and practical exercises in submarine operating characteristics, underwater sound, radar and ECM equipment and tactics, submarine evasion tactics, tactical navigation equipment operation, and synthetic trainer exercises.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0043

ASW TACTICS—FIRST TOUR VP PILOT

(VS CRAG Pilot ASW Indoctrination, Equipments, and Tactics—S-2D Aircraft)

(VP Pilot P3A/B)

Course Number: D-2A-0011; D-2A-0012; D-2A-012.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 5-7 weeks (150-235 hours).

Exhibit Dates: 1/66-Present.

Objectives: To train pilots to operate S-2D weapons systems.

Instruction: Lectures in ASW organization, VS weapons system introduction, submarine operating characteristics, underwater sound, radar equipment and tactics, submarine evasion tactics, attack criteria, and coordinated submarine/air barrier operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0044

VP CRAG ENLISTED AIRCREWMAN ASW INDOCTRINATION AND EQUIPMENTS

Course Number: D-050-010.

Location: Fleet Airborne Electronics Training Unit, Atlantic, Norfolk, VA.

Length: 5 weeks.

Exhibit Dates: 7/66-12/68.

Objectives: To train enlisted personnel in ASW equipment operation.

Instruction: Lectures in ASW background and organization, methods of aircrew designation, submarine characteristics and operating procedures, radar and ECM operator techniques and duties, and tactical navigational and tactical display equipment introduction.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0045

AMPHIBIOUS WARFARE INDOCTRINATION

Course Number: G-00-6301.

Location: Amphibious School, Little Creek, VA.

Length: 2 weeks (69-73 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train officers in the organization and capabilities of amphibious forces and the basic principles and techniques of amphibious warfare.

Instruction: Lectures and practical exercises on amphibious warfare, including concepts of amphibious operations, organization and command; naval orientation in amphibious forces; supporting arms; amphibious planning, intelligence, communications, and logistics; and ship and shore movement.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0046

AMPHIBIOUS JUNIOR OFFICER INDOCTRINATION

Course Number: H-00-5223.

Location: Amphibious School, San Diego, CA.

Length: 9 weeks (268 hours).

Exhibit Dates: 6/70-Present.

Objectives: To enable junior officers without previous shipboard experience to perform as administrators, division officers, and watch standers.

Instruction: Lectures and practical exercises on amphibious indoctrination, including amphibious warfare indoctrination, naval amphibious communications and drill, landing craft control, duties of boat officers, boat handling and salvage operations, division organization and administration, indoctrination of new personnel, amphibious shipboard indoctrination, and courses from fleet training center.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0047

WEAPONS DELIVERY SYSTEM (OFFICERS)

Course Number: F-4E-013.

Location: Submarine School, Groton, CT.

Length: 11 weeks (307 hours).

Exhibit Dates: 4/70-Present.

Objectives: To train submarine officers in the functions, operations, and effective employment of the BQQ-2 sonar system, the Mk 113 fire control system, the Mk 48 weapons system, and the Mk 28 SUBROC missile.

Instruction: Lectures and practical exercises in weapons delivery systems, including the capabilities, operations, and employment of the BQQ-2 sonar system, the Mk 113 UWFCS, the Mk 48 torpedo and all other operational torpedoes, and the Mk 28 SUBROC missile; and in the duties of the fire control party and the approach officer. and techniques of passive ranging and target motion analysis.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0048

MOBILE RIVERINE FORCE STAFF OFFICER TRAINING

Course Number: H-00-1501.

Location: Inshore Operations Training Center, Mare Island, CA.

Length: 6 weeks (256 hours).

Exhibit Dates: 4/69-Present.

Objectives: To train officers in the techniques and tactics of riverine warfare.

Instruction: Lectures and practical exercises on riverine warfare techniques, including survival in water, counterinsurgency, survival training, riverine warfare orientation and operations, organization and command, small arms and support weapons, communications, combat support, combat service support, and tactical boat operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0049

SHIP LANDING PARTY INDOCTRINATION

Course Number: G-2E-4606; G-010-4606.

Location: Landing Force Training Command, Norfolk, VA.

Length: 2 weeks (76 hours).

Exhibit Dates: 10/72-Present.

Objectives: To train personnel to conduct small-unit operations ashore and to quell civil riots and disorders ashore.

Instruction: Lectures and practical exercises on the conduct of small-unit tactics, including individual training, weapons, riot control, communications, map reading, small-unit tactics, helicopter orientation, amphibious training and camouflage.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0050

CHIEF PETTY OFFICER LEADERSHIP, CLASS C

Course Number: None.

Location: Air Training Command, Pensacola, FL.

Length: 5 weeks (220 hours).

Exhibit Dates: 7/59-12/68.

Objectives: To improve the leadership qualities of chief petty officers.

Instruction: Lectures and practical exercises on leadership areas including duties, responsibilities, capabilities, discipline, morale, management, moral leadership, inspections, military justice, drill and command, teaching techniques, job analysis, drill review, conference speaking, world affairs, naval history, and naval traditions.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-2202-0051

JUDGE ADVOCATE GENERAL'S CORPS INDOCTRINATION

Course Number: A-00-0046.

Location: Officer Training School, Newport, RI.

Length: 8 weeks (280 hours).

Exhibit Dates: 11/72-Present.

Objectives: To train legal officers in basic Navy Judge Advocate General's Corps duties.

Instruction: Lectures in basic naval subjects, including protocol, administration, development of policy, history, concepts of sea power, carrier and submarine operations, combined military operations, shipboard organization, communications, formations and maneuvering, propulsion and damage control, and basic navigation.

Credit Recommendation: Credit is not recommended because of the military specific nature of the course (5/74).

NV-2202-0052

1. ANTI-SUBMARINE AIR CONTROL (OFFICER AND ENLISTED)
2. ANTISUBMARINE AIR CONTROL, CLASS C/O

(Antisubmarine Air Control, Class O)

Course Number: K-00-556; J-221-0321; K-00-1013; J-2G-3212; J-221-3212.

Location: *Version 1:* Fleet Combat Direction Systems Training Center, Atlantic, Dam Neck, VA; Fleet Antisubmarine Warfare School, San Diego, CA. *Version 2:* Air Technical Training Center, Glynco, GA.

Length: *Version 1:* 3-4 weeks (105-141 hours). *Version 2:* 4-5 weeks (152-164 hours).

Exhibit Dates: *Version 1:* 2/72-Present. *Version 2:* 6/66-1/72.

Objectives: To train officers and senior enlisted personnel to perform as antisubmarine air controllers using fixed- and rotary-wing techniques and procedures.

Instruction: Lectures and practical exercises in antisubmarine air control using fixed- and rotary-wing techniques and procedures, including search and rescue, oceanography, submarine capabilities, coordinated antisubmarine warfare operations, intelligence procedures, aircraft control, attack procedures, communications and emergency procedures, helicopters and sonar characteristics, and associated light, multipurpose systems.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (2/74).

NV-2202-0053

NAVAL GUNFIRE AIR SPOTTER

Course Number: H-2G-5443.

Location: Amphibious School, San Diego, CA.

Length: 3 weeks (114-153 hours).

Exhibit Dates: 2/66-Present.

Objectives: To train officers to request and control artillery and close air support, and to perform as gunfire air spotters.

Instruction: Lectures and practical exercises in the procedures for requesting and controlling artillery and close air support, and the function of gunfire air spotters, including amphibious operations, use of artillery, air support, and supporting arms coordination; ordnance and weapons systems; air observation; map reading; shipboard gunfire control systems; fire procedures; communications; and aviation ordnance and effects.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0054

BASIC SIGNALMAN

Course Number: K-201-2115; J-201-615; K-301-840.

Location: Fleet Training Center, San Diego, CA; Fleet Training Center, Newport, RI; Fleet Training Center, Pearl Harbor, HI.

Length: 6 weeks (180 hours).

Exhibit Dates: 10/63-Present.

Objectives: To train enlisted personnel as watchstanders.

Instruction: Lectures and practical exercises in visual communications procedures, including international Morse code, flag identification and flaghoist signaling, publications, flashing light and semaphore drills and positions, and message construction and procedure.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0055

SUPPORTING ARMS COORDINATION
(Supporting Arms Coordinator)

Course Number: G-2G-6449.

Location: Amphibious School, Little Creek, Norfolk, VA.

Length: 6 weeks (218-227 hours).

Exhibit Dates: 10/69-Present.

Objectives: To qualify officers to perform as supporting-arms coordinators on amphibious staffs.

Instruction: Lectures and practical exercises on troop organization and operations, coordination of naval gunfire with air and artillery support, planning naval gunfire support of amphibious operations, and SACC operations. Includes map reading and supporting-arms familiarization, planning naval gunfire support of operations ashore, conduct of fire, and supporting-arms coordination.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0056

SUBMARINE OFFICERS INDOCTRINATION

Course Number: A-2E-0029; F-00-012.

Location: Submarine School, Groton, CT.

Length: 5 weeks (134-142 hours).

Exhibit Dates: 8/70-Present.

Objectives: To qualify officers who have had training in nuclear power as officers on nuclear-powered submarines.

Instruction: Lectures and practical exercises in the duties of officers on nuclear-powered submarines, including vital ship control systems (hydraulics, steering and diving, trim and drain, hovering, high- and low-pressure air, main ballast tanks, electrical distribution, ventilation, and snorkeling), diving principles, recovery operations, communications, shiphandling, navigational principles, submarine sensors (including sonar), sound propagation principles, and basic electronics procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0057

TROOP NAVAL GUNFIRE SPOTTER

Course Number: G-2E-6435; G-2G-6435; G-041-6435.

Location: Amphibious School, Little Creek, VA.

Length: 3 weeks (108-116 hours).

Exhibit Dates: 10/66-Present.

Objectives: To train officers and noncommissioned officers to perform as naval gunfire spotters.

Instruction: Lectures and practical exercises in planning and coordination of naval gunfire at the spotter level, including administration, gunfire support, communications, fire support ships and ordnance, fire planning and coordination, conduct of fire, principles of observation, gunfire teams and communication nets, characteristics and operation of the radar beacon, and communications equipment.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0058

NAVAL GUNFIRE LIAISON OFFICER

Course Number: G-2G-6434.

Location: Amphibious School, Little Creek, VA.

Length: 8-9 weeks (271-290 hours).

Exhibit Dates: 1/68-Present.

Objectives: To train officers to perform as gunfire liaison officers.

Instruction: Lectures and practical exercises in the duties of gunfire liaison officers, including troop organization and operations, communications, map reading, conduct of fire, naval gunfire spotting, supporting arms, gunfire support planning, and coordination of gunfire support with air and artillery support in amphibious operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0059

NAVAL GUNFIRE AIR SPOTTER

Course Number: G-2G-6438.

Location: Amphibious School, Little Creek, Norfolk, VA.

Length: 2 weeks (88 hours).

Exhibit Dates: 12/72-Present.

Objectives: To train officers as naval gunfire air spotters.

Instruction: Lectures in naval gunfire support introduction, fire support ships operation, ordnance and gunnery, naval gunfire planning and coordination, air observer procedures, administrative procedures, and physical training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0060

NAVAL GUNFIRE LIAISON OFFICER

Course Number: H-2G-5441.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 7 weeks (265-339 hours).

Exhibit Dates: 1/66-Present.

Objectives: To train officers to be naval gunfire liaison officers.

Instruction: Lectures and practical exercises in troop organization and operation, spotting and coordination of naval gunfire with air and artillery support, planning naval gunfire support of amphibious operations, communications, map reading, target intelligence, aerial photograph interpretation, ammunition, and physical training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0061

SHORE FIRE CONTROL PARTY ENLISTED (MODIFIED FOR U.S. MARINE CORPS RESERVE)

Course Number: H-041-5442A.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 2 weeks (78 hours).

Exhibit Dates: 7/70-Present.

Objectives: To train enlisted personnel as communicators and spotters on shore fire control parties.

Instruction: Lectures and practical exercises in amphibious operations, administration, military organization, map reading, naval ordnance and weapons systems, and communications equipment and procedures.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0062

SHORE FIRE CONTROL PARTY ENLISTED

Course Number: H-041-5442.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 3-4 weeks (132-210 hours).

Exhibit Dates: 7/66-Present.

Objectives: To train enlisted personnel in naval gunfire techniques.

Instruction: Lectures and practical exercises in ammunition, naval fires classification, characteristics and employment of naval gunfire support ships, communication equipment operation and procedures, map reading, targets, and battle tactics.

Credit Recommendation: No credit because of the military nature of the course (5/74). military-specific nature of the course (5/74).

NV-2202-0063

Gunner's Mate Specialized Training

Course Number: A-011-0021.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 2 weeks (75 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train rated gunner's mates to maintain and repair small arms and other base defense or craft-mounted weapons.

Instruction: Lectures and practical exercises in maintenance and repair of cannons, mortars, machine guns, grenade launchers, rockets, mines, and various small arms.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0064

Naval Gunfire Spotters (Troop Officers)

Course Number: H-2G-5445.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 3 weeks (115–153 hours).

Exhibit Dates: 7/66–Present.

Objectives: To train officers in the tactics, techniques, employment, and conduct of naval gunfire during amphibious operations.

Instruction: Lectures and practical exercises in military organization, supporting services, map reading, fire support, ordnance and weapons systems, air operations, communications, and the conduct of naval gunfire.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (12/68).

NV-2202-0065

Leadership Schools Class C-1

Course Number: Not available.

Location: Service School Command, San Diego, CA; Naval Schools Command, Norfolk, VA; Naval Schools Command, Great Lakes, IL.

Length: 4 weeks (120 hours).

Exhibit Dates: 1/61–12/68.

Objectives: To provide enlisted personnel with leadership training.

Instruction: Lectures in leadership training, including the Navy's role in world affairs, human relations, petty officer duties and responsibilities, and command leadership training programs.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

NV-2202-0066

Boat Group Officers

Course Number: H-2E-5313.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 2 weeks (82 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train officers to supervise boat groups in ship-to-shore amphibious operations.

Instruction: Lectures and practical exercises in landing craft and amphibious vehicle operation, control of assault boat waves in practice movements, beaching and retracting, landing craft communications, and navigation.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0067

Naval Gunfire Staff Officer

Course Number: H-2G-5444.

Location: Amphibious School, San Diego, CA.

Length: 2 weeks (75 hours).

Exhibit Dates: 6/72–Present.

Objectives: To train staff officers to develop gunfire plans in support of amphibious operations.

Instruction: Lectures and practical exercises in amphibious operations and supporting gunfire, ordnance and weapons systems, communications, map reading, physical conditioning, field artillery, supporting arms coordination, and military symbols.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0068

Environmental Indoctrination

Course Number: D-2A-0003.

Location: Naval Air Basic Training Command, Pensacola, FL.

Length: 3 weeks (98–112 hours).

Exhibit Dates: 3/70–Present.

Objectives: To train officers in environmental indoctrination as a prerequisite for aviation/flight officer training.

Instruction: Lectures on introduction to aerodynamics, aviation physiology, aviation engineering, survival training, swimming, mathematics and physics, defensive driving, and physical fitness.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

NV-2202-0069

Combat Information Center (CIC) Officer, Class O

Course Number: C-2G-2017.

Location: Air Technical Training Center, Glynco, GA.

Length: 9–13 weeks (353–512 hours).

Exhibit Dates: 10/65–Present.

Objectives: To train officers in all operational phases of combat information centers.

Instruction: Instruction includes management, organization, electronics, electronic warfare, and communications; surface, air, and advanced operations, including air control, antiair and antisubmarine warfare.

Credit Recommendation: Credit is not recommended because of the limited specialized nature of the course (5/76).

NV-2202-0070

Ice Observer, Class C

Course Number: Not available.

Location: Technical Training Unit, Lakehurst, NJ.

Length: 6 weeks (240 hours).

Exhibit Dates: 4/57–12/68.

Objectives: To train enlisted personnel for ice reconnaissance duties and operations.

Instruction: Lectures and practical exercises in ice reconnaissance duties and operations. Topics include military operations, ice seamanship, survival, sea ice, land ice, equipment utilization, and observation techniques.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (12/68).

NV-2202-0071

Combat Sensor Warfare Training

Course Number: H-00-1940; H-000-1940.

Location: Inshore Operations Training Center, Mare Island, CA.

Length: 6 weeks (348 hours).

Exhibit Dates: 1/70–Present.

Objectives: To train personnel in combat sensor warfare and in the detection and evaluation of clandestine insurgent movements.

Instruction: Lectures and practical exercises in combat sensor warfare, including counterinsurgency, military organization in Vietnam, MACV organization and basic field organization, survival training, intelligence, operations, small arms and explosives, first aid, ground unit tactics, sensor warfare, advanced operational and environmental training, and legal and medical aspects of drug abuse.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course(6/74).

NV-2202-0073

DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5 (DLG-16 (MOD) Terrier Weapons System)

Course Number: A-121-0150.

Location: Guided Missiles School, Dam Neck, VA.

Length: 10 weeks (354 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train fire control technicians on the Terrier missile weapons systems.

Instruction: Lectures and practical exercises on the Terrier weapons system, including introduction to the DLG-16 integrated weapon system, target sensors with Naval Tactical Data System (NTDS) interface, specific weapons direction system, ships weapons systems, weapons system alignment, digital system maintenance test program and analog system maintenance tests.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (5/74).

NV-2202-0074

Combat Information Center (CIC) Watch Officer, Class O

Course Number: K-2G-351; K-2G-352; K-2G-353; C-2G-2020.

Location: Fleet Anti-Air Warfare Training Center, San Diego, CA; Air Technical Training Center, Glynco, GA.

Length: 4 weeks (160 hours).

Exhibit Dates: 5/71–Present.

Objectives: To train officers and chief petty officers to perform as CIC watch officers for normal steaming and condition-III watches.

Instruction: Lectures and practical exercises in the functions of the CIC watch officer, including foundation skills, preparation for assuming the watch, surface formation maneuvers, special situations, anti-air warfare, strike force operations, and anti-submarine warfare, exercises, and administration.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/74).

NV-2202-0075

ELECTRIC HYDRAULIC POWER DRIVE FOR 5"/38 CALIBER DUAL PURPOSE SINGLE MOUNT

Course Number: K-041-2050.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to operate, maintain, repair, and analyze the 5"/38 caliber train and Mk 6 elevation power drive.

Instruction: Lectures and practical exercises in the maintenance and repair of the electric hydraulic power drive for the 5"/38 caliber gun mount. Course includes hydraulic systems, electrical systems, local and automatic control, elevation and train indicator receiver regulator, and the interlocking solenoid system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/74).

NV-2202-0076

BASIC QUARTERMASTER

Course Number: K-772-600.

Location: Fleet Training Center, Pearl Harbor, HI.

Length: 4 weeks (120 hours).

Exhibit Dates: 3/64–12/68.

Objectives: To train enlisted personnel to stand quartermaster watches.

Instruction: Lectures and practical exercises in charts and related publications; navigational aids; time and timepieces; logs; compasses and compass error; weather; tides and currents; sunrise and sunset; azimuths; taking bearings; symbols; types of fixes; set and drift; speed and distance; and plotting problems.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-2202-0077

A-4 CONVENTIONAL WEAPONS TRAINING

Course Number: Not available.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, El Toro, CA; Air Maintenance Training Detachment, Cecil Field, FL; Air Maintenance Training Detachment, Cherry Point, NC.

Length: 4 weeks (160 hours).

Exhibit Dates: 3/68–Present.

Objectives: To train enlisted personnel to install and disassemble armament carried on A-4 aircraft.

Instruction: Lectures and practical exercises in the installation and disassembly of armament carried on A-4 aircraft. Course includes explosives introduction, safety procedures, aircraft bombs, fuzes, and rockets and launchers.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-2202-0078

2F69D P-3 WEAPON SYSTEM FOLLOW-ON-TRAINING

Course Number: Not available.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train flight crew personnel in weapons systems.

Instruction: Lectures and practical exercises in weapons systems, including operating sensors for detection, identification, and destruction of enemy submarines.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0079

2F87 P-3 WEAPON SYSTEM FOLLOW-ON-TRAINING

Course Number: Not available.

Location: Fleet Aviation Specialized Operational Training Group, Pacific, Moffett Field, CA.

Length: 2 weeks (64 hours).

Exhibit Dates: 4/73–Present.

Objectives: To train enlisted personnel to operate the 2F87 P-3 weapon system.

Instruction: Lectures and practical exercises in 2F87 P-3 weapon system operation, including operating sensors required to detect, identify, localize, and destroy hostile submarines.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0080

HELICOPTER (HS) ANTISUBMARINE WARFARE OPERATOR

(Helicopter Aviation Antisubmarine Warfare Air Sonar Operator (AN/AQS-13))

Course Number: E-210-0032; E-210-32.

Location: Fleet Airborne Electronics Training Unit, Pacific, North Island, CA.

Length: 3–4 weeks (90–138 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to be airborne sonar operators.

Instruction: Lectures and practical exercises in airborne sonar operation, including sonar search procedures, aerial plotting, vector beam patterns, sound recognition, group training, and weapons system trainer.

Credit Recommendation: No credit because of the military nature of the course (6/75).

NV-2202-0081

COUNTERINSURGENCY ORIENTATION

Course Number: H-00-5219; H-000-5219.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel in the concepts and policies of counterinsurgency.

Instruction: Lectures and practical exercises in the concepts and policies of counterinsurgency, with a survey of foreign political ideologies that are in conflict with democratic philosophies. Course includes a survey of philosophical, sociological, political, and cultural influences that conflict with democratic aims, as well as an overview of strategies and tactics used in defense against insurgent movements in foreign countries.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0082

TALOS TELEMETERING DATA REDUCTION

Course Number: Not available.

Location: Guided Missiles School, Dam Neck, VA; Naval Schools Command, Mare Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train officers and enlisted personnel to perform data reduction and analysis of Talos guided missile telemetered flight records.

Instruction: Lectures and practical exercises on Talos telemetering data reduction, including fire control system, telemetering system, airborne telemetering equipment, telemeter ground station and associated evaluation equipment, prefiring procedures, Talos data reduction, and flight analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-2202-0083

TERRIER TELEMETERING DATA REDUCTION

Course Number: Not available.

Location: Guided Missile School, Dam Neck, VA; Schools Command, Mare Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 2/68–Present.

Objectives: To train officers and enlisted personnel to perform data reduction and analysis on Terrier guided missile telemetered flight records.

Instruction: Lectures and practical exercises on data reduction and analysis of Terrier guided missile telemetered flight records, including introduction to airborne and ground station telemetering systems; Terrier guided missile exercise heads; telemeter ground stations and associated equipment; and specific Terrier guided missile functional description, data reduction and flight analysis.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-2202-0084

ASTOR/SUBROC OPERATOR MAINTENANCE

Course Number: K-000-947.

Location: Nuclear Weapons Training Center, Pacific, North Island, CA.

Length: 3 weeks (90 hours).

Exhibit Dates: 5/68–Present.

Objectives: To train COMSUBPAC personnel in the operation and maintenance of the ASTOR torpedo warhead and the SUBROC warhead.

Instruction: Lectures and practical exercises in the operation and maintenance of the ASTOR torpedo warhead and SUBROC warhead, including nuclear weapons administration, nuclear training, and weapons training.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/74).

NV-2202-0085

3"/50 CALIBER RAPID FIRE GUN MOUNT MAINTENANCE

Course Number: K-041-2052.

Location: Fleet Training Center, San Diego, CA.

Length: 2 weeks (60 hours).

Exhibit Dates: 10/72–Present.

Objectives: To train enlisted personnel to operate, maintain, adjust, and repair the 3"/50 caliber rapid-fire gun and mount.

Instruction: Lectures and practical exercises in 3"/50 caliber rapid-fire gun and mount operation, maintenance, and repair, including stand, carriage, training gear, elevating gear, power drives, electrical installations, gun assembly, and loader.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/74).

NV-2202-0086

Navy Nuclear Weapons Advanced Maintenance

Course Number: A-644-0015.

Location: Defense Atomic Support Agency, Albuquerque, NM.

Length: 4 weeks (126 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train enlisted personnel to maintain nuclear warheads.

Instruction: Lectures and practical exercises in the depot-level maintenance of nuclear warheads, including theory of nuclear warhead components, disassembly, inspection, testing, maintenance, general handling, and safety, and preparation and testing of sealant compounds.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (8/74).

NV-2202-0087

Aviation Indoctrination, Limited Duty Officer (LDO)

Course Number: None.

Location: Air Base Training Command, Pensacola, FL.

Length: 8 weeks (296 hours).

Exhibit Dates: 10/64–Present.

Objectives: To train limited-duty officers to assume various aviation-related duties.

Instruction: Lectures and practical exercises in aviation indoctrination for limited-duty officers. Course includes naval leadership, organization and administration, naval history and operations, and physical training.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in naval science (12/68).

NV-2202-0088

Aviation Reserve Officer Candidate (AVROC)

Course Number: None.

Location: Air Basic Training Command, Pensacola, FL.

Length: *Version 1:* 16 weeks (440 hours). *Version 2:* 12–16 weeks (404–489 hours).

Exhibit Dates: *Version 1:* 1/69–Present. *Version 2:* 3/66–12/68.

Objectives: To train military personnel to be aviation officers.

Instruction: This course is the same as NV-2202-0033, except that reserve personnel complete it in two 6- or 8-week summer sessions. Topics include: naval history; orientation to naval careers; world affairs; physics and mathematics; engineering; aerodynamics; aviation physiology; navigation and seamanship; physical fitness and swimming; and applied leadership training.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 12 semester hours in naval science (i.e., 6 semester hours for each summer session) (2/74). *Version 2:* In the upper-division baccalaureate category, 6 semester hours in naval science (i.e., 3 semester hours for each summer session) (12/68).

NV-2202-0089

Naval Gunfire Support Planning

Course Number: H-2G-5447.

Location: Amphibious School, Coronado, San Diego, CA.

Length: 5–6 weeks (197–237 hours).

Exhibit Dates: 7/66–12/68.

Objectives: To provide Navy and Marine Corps officers with knowledge and skills in naval gunfire planning and employment.

Instruction: Lectures and practical exercises in history of naval gunfire, amphibious raids, organization of military combat units, supporting arms, air control, communications, with special emphasis on landing force aspects.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0090

Amphibious Junior Division Officer Indoctrination

Course Number: G-00-6518.

Location: Amphibious School, Little Creek, Norfolk, VA.

Length: 3 weeks (102 hours).

Exhibit Dates: 4/67–Present.

Objectives: To provide newly commissioned officers with knowledge in amphibious warfare.

Instruction: Lectures and practical exercises in concepts of amphibious warfare, operations, planning, communications, ship/shore movement, physical training, leadership, career counseling, and support operations.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0091

PHIBLANT Petty Officer Leadership

Course Number: G-000-6583.

Location: Amphibious Base, Little Creek, VA.

Length: 2 weeks (73 hours).

Exhibit Dates: 10/72–Present.

Objectives: To provide leadership training.

Instruction: Lectures and practical exercises to include basic leadership principles, instructor training, military law, world affairs, American government, Navy history and heritage, and career counseling.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (7/74).

NV-2202-0092

Enlisted Submarine Indoctrination

Course Number: A-060-0012.

Location: Submarine School, Groton, CT.

Length: 4 weeks (113 hours).

Exhibit Dates: 7/71–Present.

Objectives: To provide enlisted personnel with familiarization and knowledge of submarines.

Instruction: Lectures and practical exercises in purpose, function, and location of installed equipment and systems of a nuclear-powered submarine, including theory and operation of equipment and systems, and all aspects of submarine duty.

Credit Recommendation: Credit is not recommended because of the specialized nature of the course (7/74).

NV-2202-0093

Women Officer Candidate School

Course Number: A-00-0051.

Location: Women Officer School, Newport, RI.

Length: *Version 1:* 16 weeks (480 hours). *Version 2:* 7–8 weeks (182–240 hours).

Exhibit Dates: *Version 1:* 8/71–Present. *Version 2:* 3/61–7/71.

Objectives: To provide women officer candidates with instruction and training in essential naval subjects which will prepare them to perform duties as naval officers.

Instruction: Study of the Navy role in support of national objectives, national security organization, leadership, managerial and personnel administration, military justice, and communication skills development.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 4 semester hours in naval organization and history (7/74). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in naval organization and history (7/74).

NV-2202-0094

Limited Duty Officer (LDO) Indoctrination

Course Number: None.

Location: Naval Schools Command, Newport, RI.

Length: *Version 1:* 7 weeks (217 hours). *Version 2:* 10 weeks (300 hours). *Version 3:* 5 weeks (150 hours).

Exhibit Dates: *Version 1:* 6/58–12/68. *Version 2:* 4/56–5/58. *Version 3:* 6/54–3/56.

Objectives: To provide orientation and familiarization to newly commissioned officers in the broad scope of customs, traditions, and regulations of the Navy.

Instruction: Lectures and practical exercises in naval leadership, administration, customs, military courtesy, seamanship, military justice, and naval operations.

Credit Recommendation: *Version 1:* In the upper-division baccalaureate category, 3 semester hours in naval science (12/68). *Version 2:* In the upper-division baccalaureate category, 3 semester hours in naval science (12/68). *Version 3:* In the upper-division baccalaureate category, 2 semester hours in naval science (12/68).

NV-2202-0095

Naval School, Officer Women (Reserve)

Course Number: None.

Location: Naval Schools Command, Newport, RI.

Length: 15–16 weeks (450–488 hours).

Exhibit Dates: 4/54–Present.

Objectives: To provide indoctrination and training in general subjects for personnel on duty in reserve forces.

Instruction: Lectures and practical exercises in basic naval subjects to include administration, communication, operation, naval techniques, regulations, essential techniques and basic psychology of leadership, and naval ideals, customs, and traditions. (Reserve personnel attend two eight-week summer sessions.)

Credit Recommendation: In the upper-division baccalaureate category, 2 semester hours in naval organization and history for each eight-week summer session (7/74).

NV-2202-0096

Carrier Aviation Antisubmarine Warfare (AASW) Acoustic Operator (Passive)

Course Number: E-210-51.

Location: Fleet Airborne Electronics Training Unit, San Diego, CA.

Length: 4 weeks (120 hours).

Exhibit Dates: 10/72–Present.

Objectives: To prepare personnel as antisubmarine warfare acoustic operators.

Instruction: Lectures and practical exercises to include sonobouys, radio receivers, switch functions, safety precautions, preflight practices, diesel submarines, and foreign submarine identification and operations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (7/74).

NV-2202-0097

A-7 M61A1 Gun and Associated Systems Intermediate Maintenance

Course Number: C-646-3786.

Location: Air Maintenance Training Detachment, Lemoore, CA; Air Maintenance Training Detachment, Cecil Field, FL.

Length: 2 weeks (80 hours).

Exhibit Dates: 7/70–Present.

Objectives: To train personnel to maintain the M61A1 gun.

Instruction: Lectures and practical exercises in the operation, inspection, disassembly, repair, reassembly, and testing of the M61A1 gun and control system.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (5/74).

NV-2202-0098

Mine Hunting Sonar Familiarization (Reserve)

Course Number: A-130-0081.

Location: Mine Warfare School, Charleston, SC.

Length: 2 weeks (80 hours).

Exhibit Dates: 11/71–Present.

Objectives: To provide personnel with the necessary skills and related knowledge to operate specified sonar sets.

Instruction: Lectures, demonstrations, and practical experience in doctrine, basic sonar principles and procedures for navigation and plotting, and instruction in system capabilities and limitations of the AN/SQQ-14 mine-detecting/classifying sonar.

Credit Recommendation: Credit is not recommended because of the limited, specialized nature of the training (8/77).

NV-2202-0099

Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization

Course Number: A-2F-0036.

Location: Guided Missiles School, Dam Neck, VA.

Length: 2 weeks (60 hours).

Exhibit Dates: 8/71–Present.

Objectives: To instruct personnel in target motion analysis using a specific fire control system.

Instruction: Lectures and practical exercises providing basic background in relative motion concepts; plotting techniques; purpose of the system; elements of display; and interpretation of observations.

Credit Recommendation: Credit is not recommended because of the limited technical nature of the course (6/75).

NV-2202-0100

Marine NOP (Nuclear Weapons Training for Nuclear Ordnance Platoon Personnel)

Course Number: Not available.

Location: Nuclear Weapons Training Group, Pacific, North Island, CA.

Length: 7 weeks (245 hours).

Exhibit Dates: 1/73–Present.

Objectives: To train selected Marine Corps officers and noncommissioned officers for assignment to nuclear operations platoons.

Instruction: Instruction includes administration, security, reliability, and safety, and theory of operation, assembly, test, and maintenance of Marine Corps ground-delivered weapons.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

NV-2202-0101

Naval Enlisted Scientific Education Program (NESEP)

(NESEP Basic)

Course Number: A-00-4402; A-00-4404; A-00-0109.

Location: Officer Candidate School, Newport, RI.

Length: 10 weeks (260–350 hours).

Exhibit Dates: 4/72–Present.

Objectives: To prepare selected enlisted personnel for commissioning.

Instruction: Classroom and practical instruction in leadership and supervision, naval operations, and general military subjects.

Credit Recommendation: In the lower-division baccalaureate/associate degree category, 2 semester hours in interpersonal relations (6/75).

NV-2202-0102

Officer Candidate School

Course Number: A-00-4401; A-00-0044.

Location: Education and Training Center, Newport, RI.

Length: 16–19 weeks (512–665 hours).

Exhibit Dates: 4/55–Present.

Objectives: To provide officer candidates with an introduction to essential naval subjects.

Instruction: Classroom and practical instruction in naval orientation and supervision, tactics, seamanship, damage control, engineering, navigation, and the role of sea power. Primary emphasis is placed on leadership for newly commissioned officers.

Credit Recommendation: In the upper-division baccalaureate category, 6 semester hours in advanced naval science (7/74).

NV-2202-0103

Reserve Officer Candidate (ROC II and ROC I)

Course Number: A-00-4301; A-00-0045.

Location: Education and Training Center, Newport, RI.

Length: 16–21 weeks (512–665 hours).

Exhibit Dates: 4/55–Present.

Objectives: To provide reserve officer candidates with instruction in essential naval subjects.

Instruction: This course provides essentially the same instructional material as the Officer Candidate program for active-duty personnel (see NV-2202-0102). Students attend 8–9 weeks of training (ROC II) during the summer between their junior and senior college years. The remainder of the program—8–12 weeks (ROC I)—is completed after graduation from college.

Credit Recommendation: In the upper-division baccalaureate category, 3 semester hours in advanced naval science for completion of ROC II and 3 in advanced naval science for completion of ROC I (see "Instruction" section above) (7/74).

NV-2202-0104

Gun Mount 5"/54 Mk 42 Mod 9 and 10, Class C1

Course Number: A-113-0044.

Location: Gunner's Mate School, Great Lakes, IL.

Length: 19 weeks (570–592 hours).

Exhibit Dates: 2/70–Present.

Objectives: To train personnel in the operation, adjustment, and maintenance of a 5"/54 gun mount.

Instruction: Lectures and practical exercises in gun loaders, hoists, ammunition carriers, and related equipment.

Credit Recommendation: In the vocational certificate category, 2 semester hours in electromechanical hydraulic systems and 2 in electromechanical hydraulics laboratory (9/77).

NV-2202-0105

Advanced Jezebel (VP)

Course Number: E-210-44.

Location: Fleet Aviation Specialized Operational Training Group, Moffett Field, CA.

Length: 2 weeks (70 hours).

Exhibit Dates: 11/72–Present.

Objectives: To train personnel in the operation of a specific electronic system.

Instruction: Lectures and practical exercises to include advanced gram analysis, tactical aspects of AQA-7 Jezebel, intelligence data, and basic sonar theory.

Credit Recommendation: Credit is not recommended because of the military-specific nature of the course (6/75).

[illegible]

NV-[illegible]

[illegible]

Course Number: [illegible]

Location: [illegible]

[illegible]

NV-[illegible]

[illegible]

Course Number: [illegible]

Location: [illegible]

[illegible]

Navy Enlisted Ratings Exhibits

NER-AB-001

AVIATION BOATSWAIN'S MATE

ABCS

ABCM

Exhibit Dates: 6/71–Present.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

May progress from: ABHC, Chief Aviation Boatswain's Mate, Aircraft Handling (E-7); ABFC, Chief Aviation Boatswain's Mate, Fuels (E-7); *or* ABEC, Chief Aviation Boatswain's Mate, Launching and Recovery Equipment (E-7). *ABCS:* Senior Chief Aviation Boatswain's Mate (E-8). *ABCM:* Master Chief Aviation Boatswain's Mate (E-9).

Description

ABCS: Able to perform the duties required for ABHC (Chief Aviation Boatswain's Mate, Aircraft Handling), ABFC (Chief Aviation Boatswain's Mate, Fuels), or ABEC (Chief Aviation Boatswain's Mate, Launching and Recovery Equipment); monitors maintenance schedules and administers safety programs in the following areas: launch, recovery, aviation-fuel-system, aircraft-handling, crash-rescue and damage-control equipment; assigns personnel and prepares correspondence; organizes, schedules, and evaluates training programs; responsible for availability of spare parts and equipment; implements quality control and surveillance procedures for aviation fuel; evaluates equipment overhaul procedures; administers long-range maintenance programs; requisitions, inventories, and disposes of materials in own operational area; administers air terminal operations, including storage of cargo, handling of passengers and aircrew, and aircraft services. *ABCM:* Able to perform the duties required for ABCS; formulates guidelines for use in safety inspections; plans, organizes, and implements control activities in compliance with policy statements, orders, and directives; establishes goals and objectives in area of responsibility; forecasts future requirements for personnel, equipment and materials; reviews and interprets maintenance directives; reviews performance of aircraft-handling, crash-rescue, and damage-control crews with crew members; reviews programs and insures that all scheduled maintenance for launch, recovery, aviation-fuel system, aircraft-handling, crash-rescue and damage-control equipment is being or has been performed; establishes inspection and operational evaluation procedures to be used on repaired or newly installed parts; develops operating budgets and monitors expenditures; enters changes to ship equipment configuration accounting system and submits required reports.

Recommendation, ABCS

In the vocational certificate category, if the individual progressed from ABEC (Chief Aviation Boatswain's Mate, Launching and Recovery Equipment), use the recommendation in exhibit NER-ABE-001. In the lower-division baccalaureate/associate degree category, 3 semester hours in aviation safety, 3 in maintenance management, and 3 in air operations management, and additional credit in hydraulics, fire science, and aircraft servicing or air operations on the basis of institutional evaluation, for a minimum total of 9 semester hours; *add* the 16 semester hours for ABHC (Chief Aviation Boatswain's Mate, Aircraft Handling), for a minimum total of 25 semester hours, *or* the 16 semester hours for ABFC (Chief Aviation Boatswain's Mate, Fuels), for a minimum total of 25 semester hours, *or* the 13 semester hours for ABEC (Chief Aviation Boatswain's Mate, Launching and Recovery Equipment), for a minimum total of 22 semester hours, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

Recommendation, ABCM

In the vocational certificate category, if the individual progressed from ABEC (Chief Aviation Boatswain's Mate, Launching and Recovery Equipment), use the recommendation in exhibit NER-ABE-001. In the lower-division baccalaureate/associate degree category, 4 semester hours in aviation safety, 3 in maintenance management, 3 in air operations management, and 3 in introduction to management, and additional credit in hydraulics, fire science, and aircraft servicing or air operations on the basis of institutional evaluation, for a minimum total of 13 semester hours; *add* the 16 semester hours for ABHC (Chief Aviation Boatswain's Mate, Aircraft Handling) in exhibit NER-ABH-001, for a minimum total for 29 semester hours, *or* the 16 semester hours for ABFC (Chief Aviation Boatswain's Mate, Fuels) in exhibit NER-ABF-001, for a minimum total of 29 semester hours, *or* the 13 semester hours for ABEC (Chief Aviation Boatswain's Mate, Launching and Recovery Equipment) in exhibit NER-ABE-001, for a minimum total of 26 semester hours, as appropriate. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (2/77).

NER-ABE-001

AVIATION BOATSWAIN'S MATE,
LAUNCHING AND RECOVERY
EQUIPMENT

ABE3

ABE2

ABE1

ABEC

Exhibit Dates: 6/71–Present.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ABE3:* Aviation Boatswain's Mate, Launching and Recovery Equipment, Third Class (E-4). *ABE2:* Aviation Boatswain's Mate, Launching and Recovery Equipment, Second Class (E-5). *ABE1:* Aviation Boatswain's Mate, Launching and Recovery Equipment, First Class (E-6). *ABEC:* Chief Aviation Boatswain's Mate, Launching and Recovery Equipment (E-7). *ABCS:* Senior Chief Aviation Boatswain's Mate (E-8). *ABCM:* Master Chief Aviation Boatswain's Mate (E-9).

Description

Summary: Operates and maintains hydraulic and steam catapults, barricades and arresting gear; operates catapult launch, retract panels, consoles, firing panels, water brakes, chronographs, blast deflectors and cooling panels; inspects and proof-loads cables, fittings, and wire rope sockets. *ABE3:* Inspects and lubricates launch and recovery equipment; replaces packing and seals on catapults and arresting gear; rigs and installs barricades; performs planned maintenance on arresting gear and arresting gear engines; operates and maintains jet blast deflectors; determines safe working loads for hoisting materials, wire rope, manila lines, nylon lines, and webbing; uses maintenance cards; completes maintenance records. *ABE2:* Able to perform the duties required for *ABE3;* inspects, tests, and adjusts catapults and related equipment; tests, adjusts, and calibrates arresting gear and barricades; supervises personnel on aircraft launch hookup; inventories equipment and spare parts; orders spare parts and special tools. *ABE1:* Able to perform the duties required for ABE2; disassembles, replaces defective parts, and reassembles catapult systems, arresting gear engines, and accessories; prepares data for equipment logs; supervises the use of maintenance publications; prepares preventive maintenance schedules; maintains custody records. *ABEC:* Able to perform the duties required for ABE1; supervises the use, filing, and maintenance of publications and records; screens defective components for repair; inspects and evaluates operation of repaired equipment; insures quality control; prepares quarterly schedules of preventative maintenance; supervises the accounting for and replacement of spare parts and equipment.

Recommendation, ABE3 and ABE2

In the vocational certificate category, 3 semester hours in basic hydraulics and additional credit on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, credit in hydraulics on the basis of institutional evaluation (2/77).

Recommendation, ABE1

In the vocational certificate category, 3 semester hours in hydraulics, 2 in shop management, and 1 in record keeping, and additional credit in hydraulics on the basis of institutional evaluation, for a minimum total of 6 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 2 in shop management, 2 in personnel supervision, and 1 in record keeping, and additional credit in hydraulics on the basis of institutional evaluation, for a minimum total of 8 semester hours (2/77).

Recommendation, ABEC

In the vocational certificate category, the recommendation is the same as that for ABE1. In the lower-division baccalaureate/associate degree category, 3 semester hours in hydraulics, 3 for field experience in management, 3 in personnel supervision, 2 in shop management, and 2 in record keeping, and additional credit in hydraulics on the basis of institutional evaluation for a minimum total of 13 semester hours (2/77).

NER-ABF-001

AVIATION BOATSWAIN'S MATE, FUELS

ABF3
ABF2
ABF1
ABFC

Exhibit Dates: 6/71–Present.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ABF3:* Aviation Boatswain's Mate, Fuels, Third Class (E-4). *ABF2:* Aviation Boatswain's Mate, Fuels, Second Class (E-5). *ABF1:* Aviation Boatswain's Mate, Fuels, First Class (E-6). *ABFC:* Chief Aviation Boatswain's Mate, Fuels (E-7). *ABCS:* Senior Chief Aviation Boatswain's Mate (E-8). *ABCM:* Master Chief Aviation Boatswain's Mate (E-9).

Description

Summary: Operates, maintains, and repairs fueling and lubricating oil systems including service stations, pumprooms, pumps, piping, valves, tanks, and protective piping systems; operates equipment associated with the fueling and defueling of aircraft aboard ship and ashore; operates motor driven fueling equipment; maintains fuel quality; trains, directs, and supervises firefighting crews and fire rescue teams; follows fuel-handling safety precautions. *ABF3:* Operates shipboard firefighting and life saving equipment; knows the characteristics of aviation fuel fires and the procedures and equipment required to fight them; performs maintenance record keeping; uses portable inertness analyzers; aligns valves in fuel piping systems for various operations; fuels and defuels aircraft; obtains samples of aviation fuels and tests for water and solid contaminants; knows the properties and hazards of aviation fuels; makes entries in pumproom logs and records; uses maintenance record cards; operates crash firefighting and mobile fueling and lubricating oil equipment; uses and maintains hand tools and portable power tools. *ABF2:* Able to perform the duties required for ABF3; replaces components of aviation fuel and lubricating oil systems; conducts tests on fuel filter elements; operates solid contamination detectors and water free detectors; inventories, orders, and accounts for spare repair parts; supervises crews in the fueling and defueling of aircraft. *ABF1:* Able to perform the duties required for ABF2; analyzes malfunctions of aviation-fuel systems test equipment, aviation fuel and lubricating oil systems, and the nitrogen distribution system and determines corrective action; maintains fuel and lubricating oil inventory records; calibrates, adjusts, tests, cleans, and flushes aviation fuel and lubricating oil systems; knows the principles and maintenance requirements of centrifugal purifiers; trains subordinates in the operation of fuel systems and test equipment; prepares weekly maintenance schedules; maintains inventory and supply records. *ABFC:* Able to perform the duties of ABF1; supervises inspection, operation, maintenance, and repair of aviation fuel systems; monitors procedures for maintaining quality control; prepares quarterly maintenance schedules; responsible for materials and supplies for organizational unit; supervises inspection procedures to ensure that technical specifications and standards of workmanship are met; inspects and evaluates the operation of repaired or newly installed parts and components of aviation fuel systems and related equipment.

Recommendation, ABF3

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science and 1 in aircraft servicing (2/77).

Recommendation, ABF2

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science and 2 in aircraft servicing (2/77).

Recommendation, ABF1

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science, 3 in aircraft servicing, 2 in personnel supervision, 2 in shop management, and 2 in record keeping, for a total of 12 semester hours (2/77).

Recommendation, ABFC

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science, 3 in aircraft servicing, 3 in personnel supervision, 3 for field experience in management, 2 in shop management, and 2 in record keeping, for a total of 16 semester hours (2/77).

NER-ABH-001

AVIATION BOATSWAIN'S MATE, AIRCRAFT HANDLING

ABH3
ABH2
ABH1
ABHC

Exhibit Dates: 6/71–Present.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ABH3:* Aviation Boatswain's Mate, Aircraft Handling, Third Class (E-4). *ABH2:* Aviation Boatswain's Mate, Aircraft Handling, Second Class (E-5). *ABH1:* Aviation Boatswain's Mate, Aircraft Handling, First Class (E-6). *ABHC:* Chief Aviation Boatswain's Mate, Aircraft Handling (E-7). *ABCS:* Senior Chief Aviation Boatswain's Mate (E-8). *ABCM:* Master Chief Aviation Boatswain's Mate (E-9).

Description

Summary: Directs the movement and spotting of aircraft ashore and afloat; operates and maintains ground-handling equipment used for moving and hoisting aircraft; supervises securing of aircraft and equipment; performs crash rescue, firefighting, crash removal, and damage control; performs in connection with launching and recovering aircraft. *ABH3:* Carries out cockpit emergency entry procedures; knows procedures for rescuing personnel from crashed aircraft; operates damage-control equipment, lifesaving apparatus, and fire and elevator doors; supervises movement and spotting of aircraft ashore and afloat; secures aircraft and equipment; performs preventive operator maintenance on aircraft ground-handling equipment; operates and performs daily inspections on mobile crash-handling vehicles and equipment; installs aircraft hoisting slings involving emergency crash landings; computes safe working load for hoisting material; rigs deck equipment on shore-based arresting gear; operates aircraft cranes, elevator controls and related hangar/deck equipment; provides signals for the launching and recovery of helicopters; performs air terminal functions including storage of cargo, handling of passengers, aircrew, and aircraft services; completes maintenance records. *ABH2:* Able to perform the duties required for ABH3; directs part of a crew involved in repairing damage to flight and hangar decks; spots aircraft for catapult launching; tests hangar sprinkler systems; reads and interprets blueprints and drawings; inventories installed equipment and spare parts; orders spare parts and special tools; uses maintenance publications. *ABH1:* Able to perform the duties required for ABH2; directs a crew involved in repairing damaged flight and hangar decks; directs a unit of a deck, water, or land crash fire and rescue group; keeps logs pertaining to test data and equipment history; determines type and use of emergency equipment for removing crashed or damaged aircraft; prepares weekly schedules of preventive maintenance; maintains inventories and custody records; reeves cables on ship's boat and airplane crane; interprets aircraft spotting and respotting procedures; interprets procedures and equipment requirements for jettisoning aircraft and equipment. *ABHC:* Able to perform the duties required for ABH1; plans spotting of aircraft on flight and hangar decks; conducts prelaunch briefings of plane directors; directs the movement and spotting of aircraft during launching, landing, and directs the respotting aboard aircraft carriers; prepares quarterly schedules of preventive maintenance; supervises inspection procedures for quality control; screens defective components for feasibility of repair; supervises storage, inventory, and replacement of spare parts and equipment; supervises the use and maintenance of publications and records.

Recommendation, ABH3 and ABH2

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science and 2 in aircraft servicing or air operations (2/77).

Recommendation, ABH1

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science, 3 in aircraft servicing or air operations, 2 in personnel supervision, 2 in shop management, and 2 in record keeping, and additional credit in fire science on the basis of institutional evaluation, for a minimum total of 12 semester hours (2/77).

Recommendation, ABHC

In the lower-division baccalaureate/associate degree category, 3 semester hours in fire science, 3 in aircraft servicing or air operations, 3 in personnel supervision, 3 for field experience in management, 2 in shop management, and 2 in record keeping, and additional credit in fire science on the basis of institutional evaluation, for a minimum total of 16 semester hours (2/77).

NER-AC-001

AIR TRAFFIC CONTROLLER (AIR CONTROLMAN)

AC3
AC2
AC1
ACC
ACCS
ACCM

Exhibit Dates: 6/71-Present.

Occupational Field: 7 (Air Traffic Control).

Career Pattern

AN: Airman (E-3). *AC3:* Air Controlman Third Class (E-4). *AC2:* Air Controlman Second Class (E-5). *AC1:* Air Controlman First Class (E-6). *ACC:* Chief Air Controlman (E-7). *ACCS:* Senior Chief Air Controlman (E-8). *ACCM:* Master Chief Air Controlman (E-9).

Description

Summary: Performs air traffic control duties in air control towers, radar air traffic control facilities, and air operations offices; directs aircraft under VFR and IFR conditions. *AC3:* Interprets FAA regulations pertaining to air traffic control; directs air traffic under visual flight rules; records instrument flight rules clearances and relays to aircraft; issues instructions to vehicular traffic on the airfield and to aircraft on the ground relative to taxiing, parking, and related airport information; issues instructions to fire, crash, and rescue equipment for emergency landings, crashes, and accidents; identifies airfield markings and lighting systems; effects radar handoff; carries out nonradar control of aircraft experiencing emergencies in flight; interprets effect of weather and topography on the operating capability of radar, IFF, and related equipment; maintains flight data and status boards; processes flight plans; controls aircraft using precision approach radar; drafts and processes air traffic control data by teletype/interphone; operates communications equipment and airfield lighting systems; obtains and relays weather information to aircraft and local weather facilities; checks calibration and adjusts radar indicators; identifies and monitors electronic aids to air navigation; uses standard aeronautical charts and publications used in air navigation. *AC2:* Able to perform the duties required for AC3; carries out radar control of aircraft experiencing emergencies in flight; assigns and evaluates IFF/SIF codes; controls aircraft using air surveillance radar; directs air traffic under instrument flight rules; locates, identifies, and tracks aircraft; interprets characteristics, purposes, and general operating procedures of landing approach systems; applies minimums applicable to IFR approaches and departures and special VFR operations; maintains air traffic operations logs and records; orders charts and publications. *AC1:* Able to perform the duties required for AC2; supervises procedures used by control tower personnel; coordinates functions of radar air traffic control, applies holding pattern criteria; carries out training program for air traffic control facility personnel; maintains logs, publications, files, and records applicable to air traffic control facilities; inventories, requisitions, and accounts for air traffic control equipment. *ACC:* Able to perform the duties required for AC1; supervises radar air traffic control operations; supervises ATC facility flight checks; conducts emergency drills for air traffic control personnel; supervises the air traffic control facility training program; prepares air traffic control facility reports; interprets and disseminates FAA regulations governing the operations of air traffic control facilities; supervises the use, filing, and maintenance of publications, logs, and records. *ACCS:* Able to perform the duties required for ACC; serves as air traffic control facility watch officer; coordinates ATC facility flight checks; reviews and verifies facility compliance with standards for approach zone criteria, obstruction lighting, and field marking; organizes, schedules, and evaluates training program; establishes required inspection procedures; coordinates maintenance of air traffic control facility equipment; manages, coordinates, and evaluates safety programs and emergency drills; prepares local directives and instructions; prepares correspondence; interviews, assigns, and evaluates personnel; plans and organizes runway use and noise abatement programs; submits air traffic control facility reports. *ACCM:* Able to perform the duties required for ACCS; prepares and interprets letters of agreement, directives, and memoranda applicable to air traffic control; develops operating budgets and monitors expenditures; reviews personnel, equipment, and material requirements and forecasts future needs; establishes goals and sets priorities; plans, organizes, implements and controls air traffic control activities.

Recommendation, AC3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in air traffic control, 6 in air traffic management, and 3 in federal aviation regulations, for a total of 15 semester hours (2/77).

Recommendation, AC2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 9 semester hours in air traffic control, 6 in air traffic management, and 3 in federal aviation regulations, for a total of 18 semester hours (2/77).

Recommendation, AC1

In the vocational certificate category, the recommendation is the same as that for AC2. In the lower-division baccalaureate/associate degree category, 9 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 1 in personnel supervision, and 1 in record keeping, for a total of 20 semester hours (2/77).

Recommendation, ACC

In the vocational certificate category, the recommendation is the same as that for AC2. In the lower-division baccalaureate/associate degree category, 9 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 2 in aviation safety management, 2 in personnel supervision, and 2 in record keeping, for a total of 24 semester hours (2/77).

Recommendation, ACCS

In the vocational certificate category, the recommendation is the same as that for AC2. In the lower-division baccalaureate/associate degree category, 9 semester hours in air traffic control, 6 in air traffic management, 3 in federal aviation regulations, 3 in personnel supervision, 3 in aviation safety management, 2 in record keeping, 2 in aviation facility management, and 2 in technical report writing, for a total of 30 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

Recommendation, ACCM

In the vocational certificate category, the recommendation is the same as that for AC2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ACCS. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in organization and planning, and 3 in management problems, for a total of 9 semester hours (2/77).

NER-AD-001

AVIATION MACHINIST'S MATE, SENIOR CHIEF

ADCS

Exhibit Dates: 6/71-12/76.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

May progress from *either* ADJC, Chief Aviation Machinist's Mate, Jet Engine Mechanic, (E-7), *or* ADRC, Chief Aviation Machinist's Mate, Reciprocating Engine Mechanic (E-7). *ADCS:* Senior Chief Aviation Machinist's Mate (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Manages, supervises, and administers powerplant work centers; plans safety program pertaining to aircraft power plants, related equipment, and work centers; interprets maintenance instructions and directives; ensures that established procedures are followed for conducting ground tests and inspections to maintain desired quality level; applies quality control concepts; evaluates repair requirements and requests technical assistance from contract representatives, as needed; determines capabilities, limitations, and reliability of aircraft power plants and related systems; administers long-range planned maintenance program; organizes, schedules, and evaluates training programs; prepares local directives and instructions; prepares correspondence.

Recommendation, ADCS

In the vocational certificate category, use the recommendation for *either* ADJ2 (Aviation Machinist's Mate, Jet Engine Mechanic, Second Class) in exhibit NER-ADJ-001 or ADR1 (Aviation Machinist's Mate, Reciprocating Engine Mechanic, First Class) in exhibit NER-ADR-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in safety mangement and 3 in principles of administration; *add* the 30 semester hours recommended for *either* ADJC (Chief Aviation Machinist's Mate, Jet Engine Mechanic) in exhibit NER-ADJ-001 *or* ADRC (Chief Aviation Machinist's Mate, Reciprocating Engine Mechanic) in exhibit NER-ADR-001, as appropriate, for a total of 36 semester hours. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, 3 in quality control, and 3 in human relations, for a total of 15 semester hours (2/77).

NER-AD-002

AVIATION MACHINIST'S MATE, SENIOR CHIEF

ADCS (Note: See exhibit NER-AD-003 for AD3, AD2, AD1, and ADC)

Exhibit Dates: 1/77-Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

May progress from *either* ADC, Chief Aviation Machinist's Mate (E-7), *or* ADRC, Chief Aviation Machinist's Mate, Reciprocating Engine Mechanic (E-7). *ADCS:* Senior Chief Aviation Machinist's Mate (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Manages, supervises, and administers power plant work centers; plans safety program pertaining to aircraft power plants, related equipment, and work centers; interprets maintenance instructions and directives; ensures that established procedures are followed for conducting ground tests and inspections to maintain desired quality level; applies quality control concepts; evaluates repair requirements and requests technical assistance from contract representatives, as needed; determines capabilities, limitations and reliability of aircraft power plants and related systems; administers long-range planned maintenance program; organizes, schedules, and evaluates training programs; prepares local directives and instructions; prepares correspondence.

Recommendation, ADCS

In the vocational certificate category, use the recommendation for either AD2 (Aviation Machinist's Mate, Second Class) in exhibit NER-AD-003 or ADR1 (Aviation Machinist's Mate, Reciprocating Engine Mechanic, First Class) in exhibit NER-ADR-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in safety management and 3 in principles of administration; *add* the 30 semester hours recommended for *either* ADC (Chief Aviation Machinist's Mate) in exhibit NER-AD-003, *or* ADRC (Chief Aviation Machinist's Mate, Reciprocating Engine Mechanic) in exhibit NER-ADR-001, as appropriate, for a total of 36 semester hours. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, 3 in quality control, and 3 in human relations, for a total of 15 semester hours (5/79).

NER-AD-003

AVIATION MACHINIST'S MATE

AD3
AD2
AD1
ADC

Exhibit Dates: 1/77-Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AD3:* Aviation Machinist's Mate, Third Class (E-4). *AD2:* Aviation Machinist's Mate, Second Class (E-5). *AD1:* Aviation Machinist's Mate, First Class (E-6). *ADC:* Chief Aviation Machinist's Mate (E-7). *ADCS:* Senior Chief Aviation Machinist's Mate (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Summary: Maintains aircraft engines and related systems, including the induction, cooling, fuel, oil, compression, combustion, turbine, airborne gas-turbine compressors, and exhaust systems; conducts engine and related systems inspections. *AD3:* Replaces gaskets, packings, and seals in fuel and oil systems; performs fuel and oil pressure adjustments; adjusts idle mixture and idle speed; cleans helicopter transmissions, gearboxes, rotor heads, drive shafts, and related parts; removes, inspects, and installs external fuel tanks; removes and installs ignitor plugs, spark plugs, starting ignition units, and leads of ignition and starting systems; inspects aircraft fuel systems and fuel samples for contamination; removes, cleans, and replaces fuel and oil filters; uses technical publications; serves aircraft on the flight line; performs operational tuneups of new or overhauled engines installed in aircraft; uses and maintains handtools. *AD2:* Able to perform the duties required for AD3; installs, removes, and operates jet calibration test units; diagnoses defects in fuel and oil systems; rigs and adjusts power controls, fuel selectors, and shutoff valve controls; inspects, removes, and installs helicopter tail rotor transmissions and rotary-wing heads and components; inspects compressors for proper axial and radial clearances; preserves and depreserves aircraft power plants and related systems; performs cylinder changes and valve clearance adjustments; installs and times magnetos; installs carburetors; installs and adjusts propeller controls; inspects, removes, and installs auxiliary power plant and components; performs periodic aircraft inspections; orders technical publications, directives, and manuals; is a first-line supervisor of a 3- to 7-person work group. *AD1:* Able to perform the duties required for AD2; troubleshoots malfunctions in power plant systems; removes and installs bladder and self-sealing fuel cells; inspects, removes, and installs helicopter intermediate gearboxes, tail rotors, swashplates and pitch link rods; supervises use of ground support equipment peculiar to power plants and related systems; orders power plant parts, equipment, material, and tools and maintains inventory records; supervises training of subordinates maintaining power plants and related systems; supervises aircraft inspections; inspects installation and evaluates operation of repaired or newly installed power plants and power plant system components; prepares weekly schedules of preventive maintenance; maintains shop files of technical publications, directives, and manuals; supervises medium-sized (10-30 persons) work centers; *ADC:* Able to perform the duties required for AD1; supervises use of engine service, maintenance, and test equipment; determines types of information to be recorded in each section of the aircraft log book and aeronautical equipment service record; recommends changes to maintenance instructions; analyzes reports of aircraft engine malfunctions and discrepancies and determines corrective action; analyzes inspection procedures to ensure that technical specifications and standards of workmanship are met; supervises scheduling of work at power plant work centers; determines feasibility of local repairs to components of power plants and related systems; prepares quarterly schedules of preventive maintenance; orders, inventories, and accounts for quick-engine-change kits and spare engines; disposes of engines removed from service; estimates power plant spare parts, equipment, supplies, and manpower requirements.

Recommendation, AD3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft engine maintenance and repair and 3 in aviation maintenance technology (5/79).

Recommendation, AD2

In the vocational certificate category, 15 semester hours in aircraft engine maintenance and repair and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine maintenance and repair, 6 in aviation maintenance technology, and 2 in personnel supervision, for a total of 23 semester hours (5/79).

Recommendation, AD1

In the vocational certificate category, the recommendation is the same as that for AD2. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 2 in maintenance management, for a total of 26 semester hours (5/79).

Recommendation, ADC

In the vocational certificate category, the recommendation is the same as that for AD2. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, for a total of 30 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management (5/79).

NER-ADJ-001

AVIATION MACHINIST'S MATE, JET ENGINE MECHANIC

ADJ3
ADJ2
ADJ1
ADJC

Exhibit Dates: 6/71-12/76. (Effective 1/77, ADJ was discontinued and its functions were consolidated into AD, Aviation Machinist's Mate.)

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *ADJ3:* Aviation Machinist's Mate, Jet Engine Mechanic, Third Class (E-4). *ADJ2:* Aviation Machinist's Mate, Jet Engine Mechanic, Second Class (E-5). *ADJ1:* Aviation Machinist's Mate, Jet Engine Mechanic, First Class (E-6). *ADJC:* Chief Aviation Machinist's Mate, Jet Engine Mechanic (E-7). *ADCS:* Senior Chief Aviation Machinist's Mate (E-8). *AFCM:* Master Chief Aircraft maintenanceman (E-9).

Description

Summary: Maintains aircraft jet engines and related systems, including the induction, cooling, fuel, oil, compression, combustion, turbine, airborne gas-turbine compressors, and exhaust systems. *ADJ3:* Replaces gaskets, packings, and seals in fuel and oil systems; performs fuel and oil pressure adjustments; cleans helicopter transmissions, gearboxes, rotor heads, drive shafts, and related parts; removes, inspects, and installs external fuel tanks; removes and installs ignitor plugs, starting ignition units, and leads of ignition and starting systems; inspects aircraft fuel systems and fuel samples for contamination; uses technical publications; serves aircraft on the flight line;

uses and maintains handtools. *ADJ2:* Able to perform the duties required for ADJ3; installs, removes, and operates jet calibration test units; diagnoses defects in fuel and oil systems; rigs and adjusts power controls, fuel selectors, and shutoff valve controls; inspects, removes, and installs helicopter tail rotor transmissions, and rotary wing heads and components; inspects compressors for proper axial and radial clearances; preserves and depreserves aircraft power plants and related systems; performs periodic aircraft inspections; orders technical publications, directives, and manuals; is a first-line supervisor of a 3- to 7-person work group. *ADJ1:* Able to perform the duties required for ADJ2; troubleshoots malfunctions in power plant systems; removes and installs bladder and self-sealing fuel cells; inspects, removes, and installs helicopter intermediate gearboxes, tail rotors, swashplates and pitch link rods; supervises use of ground support equipment peculiar to power plants and related systems; orders power plant parts, equipment, material, and tools and maintains inventory records; supervises training of subordinates maintaining power plants and related systems; supervises aircraft inspections; inspects installation and evaluates operation of repaired or newly installed power plants and power plant system components; prepares weekly schedules of preventive maintenance; maintains shop files of technical publications, directives, and manuals; supervises medium-sized (10–30 persons) work centers. *ADJC:* Able to perform the duties required for ADJ1; supervises use of engine service, maintenance, and test equipment; determines types of information to be recorded in each section of the aircraft log book and aeronautical equipment service record; recommends changes to maintenance instructions; analyzes reports of aircraft engine malfunctions and discrepancies and determines corrective action; analyzes inspection procedures to ensure that technical specifications and standards of workmanship are met; supervises scheduling of work at power plant work centers; determines feasibility of local repairs to components of power plants and related systems; prepares quarterly schedules of preventive maintenance; orders, inventories, and accounts for quick-engine-change kits and spare engines; disposes of engines removed from service; estimates power plant spare parts, equipment, supplies, and manpower requirements.

Recommendation, ADJ3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft engine (turbine) maintenance and repair and 3 in aviation maintenance technology (2/77).

Recommendation, ADJ2

In the vocational certificate category, 15 semester hours in aircraft engine (turbine) maintenance and repair and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (turbine) maintenance and repair, 6 in aviation maintenance technology, and 2 in personnel supervision, for a total of 23 semester hours (2/77).

Recommendation, ADJ1

In the vocational certificate category, the recommendation is the same as that for ADJ2. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (turbine) maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 2 in maintenance management, for a total of 26 semester hours (2/77).

Recommendation, ADJC

In the vocational certificate category, the recommendation is the same as that for ADJ2. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (turbine) maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, for a total of 30 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

NER-ADR-001

AVIATION MACHINIST'S MATE,
RECIPROCATING ENGINE MECHANIC

ADR3
ADR2
ADR1
ADRC

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *ADR3:* Aviation Machinist's Mate, Reciprocating Engine Mechanic, Third Class (E-4). *ADR2:* Aviation Machinist's Mate, Reciprocating Engine Mechanic, Second Class (E-5). *ADR1:* Aviation Machinist's Mate, Reciprocating Engine Mechanic, First Class (E-6). *ADRC:* Chief Aviation Machinist's Mate, Reciprocating Engine Mechanic (E-7). *ADCS:* Senior Chief Aviation Machinist's Mate (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Summary: Inspects and maintains aircraft reciprocating engines and related systems. *ADR3:* Performs idle mixture, idle speed, and fuel and oil pressure adjustments; inspects, removes, and installs spark plugs, leads, and coils; replaces gaskets, packings, and seals in fuel and oil systems; cleans helicopter transmissions, gearboxes, rotor heads, drive shafts, and related parts; removes, inspects, and installs external fuel tanks; inspects aircraft fuel systems and fuel samples for contamination; performs fuel integrity checks on aircraft fuel systems; uses and maintains handtools; services aircraft on the flight line; uses technical publications. *ADR2:* Able to perform the duties required for ADR3; locates and identifies defects in fuel and oil systems; measures and adjusts engine valve clearance; performs compression tests; performs cylinder changes; installs and times magnetos, distributors, and carburetors; rigs and adjusts power controls, fuel selectors, and shutoff valve controls; removes, installs, and adjusts propeller governor; removes, cleans, and installs propeller assemblies; inspects, removes, and installs helicopter tail rotor transmissions; performs continuity and insulation test on aircraft engine ignition systems, using electrical test equipment; orders technical publications, directives, and manuals; performs periodic aircraft inspections; applies corrosion prevention and preservation materials; preserves and depreserves aircraft power plants and related systems. *ADR1:* Able to perform the duties required for ADR2; troubleshoots propeller system; inspects and balances aircraft propeller assemblies; removes and installs bladder and self-sealing fuel cells; inspects, removes, and installs helicopter transmissions and related components, intermediate gearboxes, tail rotors, swashplate and pitch link rods; uses engine analyzers to troubleshoot reciprocating engines; uses schematic diagrams and drawings to troubleshoot power plant systems; maintains shop files of technical publications, directives, and manuals; supervises the training of subordinates involved in maintaining power plants and related systems; supervises aircraft inspections; supervises power plant and related system component build-up, removal, and installation; inspects installation and evaluates operation of repaired or newly installed power plants and power plant system components; prepares weekly schedules of preventive maintenance; orders power plant parts, equipment, materials, and tools and maintains inventory records. *ADRC:* Able to perform the duties required for ADR1; supervises balancing of propeller assemblies; supervises use of engine service, maintenance, and test equipment; recommends changes in maintenance instructions; maintains work center registers and prepares related reports; determines types of information to be recorded in each section of the aircraft log book and aeronautical equipment service record; analyzes reports of aircraft engine malfunctions and discrepancies and determines corrective action; analyzes inspection procedures to ensure that technical specifications and standards of workmanship are met; supervises scheduling of work at work centers; determines feasibility of local repairs to components of power plants and related systems; prepares quarterly schedules of preventive maintenance; orders, inventories, and accounts for quick-engine-change kits and spare engines; disposes of engines removed from service; estimates power plant spare parts, equipment, supplies, and manpower requirements.

Recommendation, ADR3

In the vocational certificate category or the lower-division baccalaureate/associate degree category, 10 semester hours in aircraft engine (reciprocating) maintenance and repair and 2 in aviation maintenance technology (2/77)

Recommendation, ADR2

In the vocational certificate category, 12 semester hours in aircraft engine (reciprocating) maintenance and repair and 4 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft engine (reciprocating) maintenance and repair, 4 in aviation maintenance technology, and 2 in personnel supervision, for a total of 18 semester hours (2/77).

Recommendation, ADR1

In the vocational certificate category, 15 semester hours in aircraft engine (reciprocating) maintenance and repair and in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (reciprocating) maintenance and repair, 6 in aviation maintenance technology, and 3 in personnel supervision, and 2 in maintenance management, for a total of 26 semester hours (2/77).

Recommendation, ADRC

In the vocational certificate category, the recommendation is the same as that for ADR1. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft engine (reciprocating) maintenance and repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, for a total of 30 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

NER-AE-001

AVIATION ELECTRICIAN'S MATE

AE3
AE2
AE1
AEC
AECS

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E–3). *AE3:* Aviation Electrician's Mate Third Class (E–4). *AE2:* Aviation Electrician's Mate Second Class (E–5). *AE1:* Aviation Electrician's Mate First Class (E–6). *AEC:* Chief Aviation Electrician's Mate (E–7). *AECS:* Senior Chief Aviation Electrician's Mate (E–8). *AVCM:* Master Chief Avionics Technician (E–9).

Description

Summary: Maintains and repairs lighting, control, and power systems on aircraft, including: power generation, conversion, and distribution systems; aircraft batteries; interior and exterior lighting; electrical control of aircraft systems, including hydraulic, landing gear, flight control, utility, and power plant and related systems; instrument systems, including aircraft engine, flight, and other indicating and warning systems; automatic flight control and stabilization systems; aircraft compass systems; attitude reference systems; and inertial navigation systems. NOTE: Duty assignments have been O-Level (troubleshooting and replacing modular systems on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AE rating receive equivalent training and must pass the same advancement examination, regardless of whether duty assignments have been O-Level or I-Level or both. *AE3:* Assists in troubleshooting and repairing electrical and instrument systems on aircraft; follows standard check-out procedures to locate and repair electrical malfunctions; reads schematics and block diagrams; uses volt-ohm-milliammeter; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AE2:* Able to perform the duties required for AE3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generators, megger, and frequency counters; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising two or three persons on a job; interprets technical directives; maintains technical library and inventory and training records; performs periodic aircraft inspections. *AE1:* Able to perform the duties required for AE2; serves as shift supervisor, supervising 8–9 persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; interprets electrical and electronic schematics and drawings and makes simplified versions; conducts on-the-job training program; inspects and approves completed work assignments; prepares weekly schedules of preventive maintenance; supervises and directs aircraft inspections; directs installation of aircraft electrical changes. *AEC:* Able to perform the duties required for AE1; serves as shop supervisor, supervising 15–20 persons; plans and implements safety instruction and inspection programs; evaluates aircraft electrical systems and equipment test procedures and recommends improvements; prepares maintenance duty schedules; prepares periodic or recurring reports; supervises the use and file maintenance of publications, logs, and records; interprets technical publications pertaining to aircraft electrical systems and test equipment; prepares quarterly schedules of preventive maintenance; supervises quality control program; provides technical assistance in aircraft accident investigations. *AECS:* Able to perform the duties required for AEC; oversees three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness.

Recommendation, AE3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory and 12 in aircraft electrical maintenance, and additional credit in aircraft electrical maintenance on the basis of institutional evaluation. Qualified to enter an apprentice training program in any electrical trade (2/77).

Recommendation, AE2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 12 in aircraft electrical maintenance, and 2 in introduction to AC/DC theory, and additional credit in aircraft electrical maintenance on the basis of institutional evaluation, for a minimum total of 17 semester hours. Advanced standing in an electrical meter tester, electrical instrument repairman, or aviation electrical mechanic apprentice training program, or in an apprentice training program for any electrical trade, on the basis of employer or trade association performance examination (2/77).

Recommendation, AE1

In the vocational certificate category, 3 semester hours in beginning electrical/electronics laboratory, 12 in aircraft electrical maintenance, and 3 in introduction to AC/DC theory, and additional credit in aircraft electrical maintenance on the basis of institutional evaluation, for a minimum total of 18 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 12 in aircraft electrical maintenance, 3 in introduction to AC/DC theory, 2 in personnel supervision, and 2 in maintenance management, and additional credit in aircraft electrical maintenance, on the basis of institutional evaluation, for a minimum total of 22 semester hours. Advanced standing in an electrical meter tester, electrical instrument repairman, or aviation electrical mechanic apprentice training program, or in an apprentice training program for any electrical trade, on the basis of employer or trade association performance examination (2/77).

Recommendation, AEC

In the vocational certificate category, the recommendation is the same as that for AE1. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 12 in aircraft electrical maintenance, 3 in introduction to AC/DC theory, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, and additional credit in aircraft electrical maintenance on the basis of institutional evaluation, for a minimum total of 27 semester hours. Advanced standing in an electrical meter tester, electrical instrument repairman, or aviation electrical mechanic apprentice training program, or in an apprentice training program for any electrical trade, on the basis of employer or trade association performance examination (2/77).

Recommendation, AECS

In the vocational certificate category, the recommendation is the same as that for AE1. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 12 in aircraft electrical maintenance, 3 in introduction to AC/DC theory, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, 3 in safety management, 3 in management electives, and 2 in technical writing, and additional credit in aircraft electrical maintenance on the basis of institutional evaluation, for a minimum total of 35 semester hours. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and additional credit in human relations and quality control on the basis of institutional evaluation. Advanced standing in an electrical meter tester, electrical instrument repairman, or aviation electrical mechanic apprentice training program, or in an apprentice training program for any electrical trade, on the basis of employer or trade association performance examination (2/77).

NER-AF-001

AIRCRAFT MAINTENANCEMAN, MASTER CHIEF

AFCM

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

May progress to AFCM, Master Chief Aircraft Maintenanceman (E–9), from *either* ADCS, Senior Chief Aviation Machinist's Mate (E–8), *or* AMCS (Senior Chief Aviation Structural Mechanic) (E–8).

Description

Able to perform the duties required for *either* ADSC (Senior Chief Aviation Machinist's Mate) *or* AMCS (Senior Chief Aviation Structural Mechanic); assists in statistical analyses of aircraft accident reports; formulates guidelines for safety inspections and instructions; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; plans and initiates actions to satisfy requirements; establishes goals and priorities; reviews and evaluates personnel, equipment, and material requirements; administers inventory, requisition, receipt, and transfer procedures for aircraft and components; monitors implementation of preventive maintenance program; serves as liaison with other Navy units; reviews and evaluates inspection records, quality control reports, and flight records to assure that proper maintenance procedures are followed; prepares staff studies and reports; develops operating budgets and monitors expenditures.

Recommendation

Use the recommendation for *either* ADCS (Senior Chief Aviation Machinist's Mate) in exhibit NER-AD-001 *or* AMCS (Senior Chief Aviation Structural Mechanic) in exhibit NER-AM-001, as appropriate, and additional credit as follows: In the vocational certificate category, 3 semester hours in technical writing. In the lower-division baccalaureate/associate degree category, 3 semester hours in technical writing and 3 in management electives. In the upper-division baccalaureate category, 6 semester hours for a practicum in management, 3 in management problems, and 3 in human relations, and additional credit in quality control on the basis of institutional evaluation, for a minimum total of 12 semester hours (2/77).

NER-AG-001

AEROGRAPHER'S MATE

AG3
AG2
AG1
AGC
AGCS
AGCM

Exhibit Dates: 6/71–Present.

Occupational Field: 23 (Meteorology).

Career Pattern

AN: Airman (E-3). *AG3:* Aerographer's Mate Third Class (E-4). *AG2:* Aerographer's Mate Second Class (E-5). *AG1:* Aerographer's Mate First Class (E-6). *AGC:* Chief Aerographer's Mate (E-7). *AGCS:* Senior Chief Aerographer's Mate (E-8). *AGCM:* Master Chief Aerographer's Mate (E-9).

Description

Summary: Observes, collects, records and analyzes meteorological and oceanographic data; makes visual and instrumental observations of weather and sea conditions. *AG3:* Identifies the types and knows the purposes of instruments and equipment used by the weather service; operates and performs routine checks and operator's preventive maintenance for meteorological and oceanographic equipment and instruments; observes, collects, records, and prepares for transmission surface meteorological elements; plots synoptic surface charts, surface charts using aviation observations, constant pressure charts, data from environmental warnings and advisories, and skew T, Log P diagrams; determines tracking data from meteorological satellite predict messages; applies grid to meteorological satellite pictures; operates radio receivers, facsimile and teletype equipment; uses publications and directives related to weather communications. *AG2:* Able to perform the duties required for AG3; checks surface observations for accuracy prior to transmission; applies meteorological fundamentals of primary, secondary, and tertiary circulations of the earth's atmosphere and of types of weather associated with air masses, frontal systems, and cyclonic and anti-cyclonic systems in drawing weather charts; identifies physical properties of sea water and major current systems and water masses of the ocean; constructs radiological fallout plot from upper wind data; draws synoptic surface charts showing frontal systems, isobars, isallobars, and pressure centers; draws constant-pressure charts showing isohypses, isotherms, troughs, ridges, and height centers; interprets oceanographic charts, computes astronomical and tidal data; maintains directives, publications, and climatological records; orders, inventories, and disposes of meteorological and oceanographic equipment, instruments, and supplies. *AG1:* Able to perform the duties required for AG2; prepares short-range (up to 24 hours) environmental forecasts; identifies and classifies weather echoes on radar; computes atmospheric refractive index; analyzes and uses skew T, Log P diagrams in preparing environmental forecasts; prepares and presents weather data for local and extended flights; identifies charts and related products from digital computers; performs calibrations and adjustments to meteorological and oceanographic equipment (excluding electronic components). *AGC:* Able to perform the duties required for AG1; interprets ocean thermal structure and factors affecting underwater transmission of sound, wind wave, swell generation, and propagation in preparing oceanographic forecasts; analyzes and uses constant pressure charts, streamline charts, surfaces charts, satellite data, and sea condition charts in preparing environmental forecasts; constructs and verifies prognostic surface and constant pressure charts; prepares environmental warnings and advisories; assigns tasks to personnel assigned to weather service units; trains subordinates in correct operating and maintenance procedures for assigned equipment. *AGCS:* Able to perform the duties required for AGC; evaluates recent meteorological and oceanographic developments for integration into local routines; provides climatological, meteorological, and oceanographic data at planning-level meetings; organizes, schedules, and evaluates training programs; administers technical publications library; prepares directives and instructions for attaining organizational objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, assigning, and evaluating personnel. *AGCM:* Able to perform the duties required for AGCS; prepares statistical analyses of climatological data and provides information concerning its uses, capabilities, and limitations; reviews personnel, equipment and material requirements and forecasts future requirements; establishes goals and sets priorities; develops operating budgets and monitors expenditures.

Recommendation, AG3

In the lower-division baccalaureate/associate degree category, 2 semester hours in meteorology and 2 in meteorology laboratory (2/77).

Recommendation, AG2

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in atmospheric environment, 2 in meteorology laboratory, and 1 in oceanography, for a total of 9 semester hours (2/77).

Recommendation, AG1

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in atmospheric environment, 3 in meteorology laboratory, 2 in climatology, and 1 in oceanography, for a total of 12 semester hours. In the upper-division baccalaureate category, 1 semester hour in atmospheric physics (2/77).

Recommendation, AGC

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in atmospheric environment, 3 in meteorology laboratory, 3 in climatology, 2 in oceanography, and 1 in personnel supervision, for a total of 15 semester hours. In the upper-division baccalaureate category, 1 semester hour in atmospheric physics (2/77).

Recommendation, AGCS

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in atmospheric environment, 3 in meteorology laboratory, 3 in climatology, 3 in oceanography, and 3 in personnel supervision, for a total of 18 semester hours. In the upper-division baccalaureate category, 1 semester hour in atmospheric physics and 1 in measurements and data systems (2/77).

Recommendation, AGCM

In the lower-division baccalaureate/associate degree category, 3 semester hours in meteorology, 3 in atmospheric environment, 3 in meteorology laboratory, 3 in climatology, 3 in oceanography, 3 in personnel supervision, and 3 in principles of administration, for a total of 21 semester hours. In the upper-division baccalaureate category, 1 semester hour in atmospheric physics, 2 in measurement and data systems, 3 in weather station management, and 3 in management problems, for a total of 9 semester hours (2/77).

NER-AK-001

AVIATION STOREKEEPER

AK3
AK2
AK1
AKC
AKCS
AKCM

Exhibit Dates: 6/71–Present.

Occupational Field: 16 (Logistics).

Career Pattern

AN: Airmen (E-3). *AK3:* Aviation Storekeeper Third Class (E-4). *AK2:* Aviation Storekeeper Second Class (E-5). *AK1:* Aviation Storekeeper First Class (E-6). *AKC:* Chief Aviation Storekeeper (E-7). *AKCS:* Senior Chief Aviation Storekeeper (E-8). *AKCM:* Master Chief Aviation Storekeeper (E-9).

Description

Summary: Receives, identifies, stores, and issues aviation supplies, spare parts, and equipment; maintains stock control records; conducts inventories. *AK3:* Applies automated data processing (ADP) supply procedures; operates various office machines; receives, verifies for quantity and condition, and acknowledges the receipt of materials; issues materials; maintains receipt control records; prepares and submits requisition, purchase, and transportation documents; types (at 20 words per minute), routes, and files correspondence, messages, and forms; operates material-handling equipment and microfiche/microfilm reader equipment. *AK2:* Able to perform the duties required for AK3; drafts correspondence and messages; monitors day-to-day status of funds and prepares rough periodic financial reports; maintains equipage inventories and records; conducts inventories; carries out procedures for maintaining, expediting, and processing components awaiting parts; applies procedures for control and accounting of classified equipment; maintains files of publications. *AK1:* Able to perform the duties required for AK2; reviews computer output for accuracy of data content; insures compliance with procedures for records disposal; establishes and maintains tickler files and a technical library; accounts for damaged, overage, and short shipments and deliveries; develops storage plans; prepares correspondence and messages. *AKC:* Able to perform the duties required for AK1; monitors shipboard uniform automated data processing system procedures applicable to supply department functions; plans the layout of offices, storerooms, and issue rooms to facilitate efficient operations; organizes and administers elements of aviation supply activities; prepares lists of material requirements; develops and implements inventory procedures. *AKCS:* Able to perform the duties required for AKC; prepares operating and safety instructions; applies procedures for the establishment, control, and supervision of supply operations; prepares local directives and instructions; reviews and evaluates personnel; organizes on-the-job training program. *AKCM:* Able to perform the duties required for AKCS; monitors conformance to safety and maintenance regulations; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; supervises the administrative, control, material, and fiscal functions of an aviation supply department; forecasts future requirements; plans and initiates actions to satisfy requirements; establishes goals and priorities; evaluates supply procedures and personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, AK3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office machines and 1 in office procedures (2/77).

Recommendation, AK2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in record keeping, and 1 in office procedures, for a total of 5 semester hours (2/77).

Recommendation, AK1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 2 in office machines, and 1 in office procedures, for a total of 6 semester hours (2/77).

Recommendation, AKC

In the vocational certificate category, 3 semester hours in record keeping, 2 in office machines, 2 in office management, and 1 in office procedures, for a total of 8 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 2 in office machines, 2 in office management, 1 in office procedures, and 1 in personnel supervision, for a total of 9 semester hours. In the upper-division baccalaureate category, credit for a practicum in management on the basis of institutional evaluation (2/77).

Recommendation, AKCS

In the vocational certificate category, the recommendation is the same as that for AKC. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in management electives, 2 in office machines, 2 in office management, 2 in personnel supervision, and 1 in office procedures, for a total of 13 semester hours. In the upper-division baccalaureate category, 3 semester hours for a practicum in management (2/77).

Recommendation, AKCM

In the vocational certificate category, the recommendation is the same as that for AKC. In the lower-division baccalaureate/associate degree category, 3 semester hours in record keeping, 3 in management electives, 3 in personnel supervision, 3 in office management, 3 in office procedures, and 2 in office machines, for a total of 17 semester hours. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and 3 in management problems, and additional credit in personnel management and in human relations on the basis of institutional evaluation, for a minimum total of 6 semester hours (2/77).

NER-AM-001

Aviation Structural Mechanic, Senior Chief

AMCS

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

May progress from AMHC, Chief Aviation Structural Mechanic, Hydraulics (E-7), *or* AMEC, Chief Aviation Structural Mechanic, Safety Equipment (E-7), *or* AMSC, Chief Aviation Structural Mechanic, Structures (E-7). *AMCS:* Senior Chief Aviation Structural Mechanic (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Manages, supervises, and administers airframe work centers of varying sizes; supervises aviation structural mechanics in the inspection, maintenance, and repair of aircraft, airframes, and hydraulic and pneumatic systems; plans safety program pertaining to airframes, related equipment, and assigned work areas; evaluates requirements and requests technical assistance from contractor representatives, as needed; prepares local directives and instructions; prepares correspondence; organizes, schedules, and evaluates training programs; monitors the overhaul and rework of airframes, structural components, and related systems; applies concepts, objectives, and functions of quality control; administers long-range, planned maintenance program; applies material control practices and supply management policies.

Recommendation

In the vocational certificate category, use the recommendation for AMH2 (Aviation Structural Mechanic, Hydraulics, Second Class), in exhibit NER-AMH-001, *or* AME1 (Aviation Structures Mechanic, Safety Equipment, First Class) in exhibit NER-AME-001, *or* AMS1 (Aviation Structures Mechanic, Structures, First Class) in exhibit NER-AMS-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in safety management and 3 in principles of administration; *add* the 30 semester hours recommended for AMHC (Chief Aviation Structures Mechanic, Hydraulics) in exhibit NER-AMH-001, or AMEC (Chief Aviation Structures Mechanic, Safety Equipment) in exhibit NER-AME-001, or AMSC (Chief Aviation Structures Mechanic, Structures) in exhibit NER-AMS-001, as appropriate, for a total of 36 semester hours. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in management problems, 3 in quality control, and 3 in human relations, for a total of 15 semester hours (2/77).

NER-AME-001

Aviation Structural Mechanic, Safety Equipment

AME3
AME2
AME1
AMEC

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AME3:* Aviation Structural Mechanic, Safety Equipment, Third Class (E-4). *AME2:* Aviation Structural Mechanic, Safety Equipment, Second Class (E-5). *AME1:* Aviation Structural Mechanic, Safety Equipment, First Class (E-6). *AMEC:* Chief Aviation Structural Mechanic, Safety Equipment (E-7). *AMCS:* Senior Chief Aviation Structural Mechanic (E-8). *AFCM:* Master Chief Aircraft Maintenance (E-9).

Description

Summary: Maintains safety belts, shoulder harnesses, and integrated flight harnesses, inertia reels, seat and canopy ejection systems, gaseous and liquid oxygen systems, life raft ejection systems, fire-extinguishing systems (excluding fire detection systems), emergency egress systems, air-conditioning, heating, and cockpit pressurization systems, and anti-G systems; replenishes liquid oxygen and gaseous systems; removes, inspects, installs, and rigs egress systems; performs daily preflight, postflight, and other periodic inspections. *AME3:* Knows operating principles of aircraft oxygen systems; services aircraft with liquid and gaseous oxygen, using oxygen transfer trailers or direct filling equipment; purges aircraft oxygen system; removes and installs aircraft oxygen systems, cockpit canopies, canopy seals, safety belts, automatic lap belts, shoulder harnesses, and inertia reels; adjusts actuating controls and mechanisms; replaces defective indicators and controls; removes and installs temperature and pressure control units and components of cooling system equipment; replaces components of fixed fire-extinguishing systems; bleeds air defrosting, anti-ice, and rain removal systems; uses schematic diagrams, drawings, and charts; uses and maintains handtools; uses technical publications. *AME2:* Able to perform the duties required for AME3; assembles and installs equipment; performs periodic aircraft inspections; assists with inventorying equipment; orders parts, equipment, material, and tools; knows operating principles of air-conditioning, pressurization, and utility systems; removes and installs ejection seats and components; adjusts ejection seats and canopy components; performs ground checks on oxygen systems; is a first-line supervisor of 4- to 7-person work group. *AME1:* Able to perform the duties required for AME2; operates vapor cycle system and portable testers for cabin pressurization; troubleshoots and repairs malfunctioning equipment; trains subordinates on operation, maintenance, and repair of aircraft environmental system and egress system; orders technical publications, directives, and manuals; maintains shop files of technical publications, directives, and manuals; adjusts cockpit canopy mechanisms and linkages; tests cockpits and cabins for pressure tightness, leaks, proper pressure, and temperature control; inspects, tests, and adjusts firing mechanisms in ejection seats, lap belts, canopies, and other cartridge-actuated emergency escape systems; analyzes air-conditioning, pressurization, and utility systems malfunctions, isolates defective components, and determines corrective action; inspects installation and evaluates operation of repaired or newly installed parts and components; supervises inspections; prepares weekly schedules of preventive maintenance. *AMEC:* Able to perform the duties required for AME1; interprets technical publications and directives; plans, organizes, and lays out work centers; maintains work center registers and prepares local reports; monitors inspection procedures to ensure that technical specifications and standards of workmanship are met; prepares quarterly schedules of preventive maintenance; maintains work center inventory records; estimates spare parts, supplies, equipment, and manpower requirements.

Recommendation, AME3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in aircraft safety and warning systems, and 3 in aviation maintenance technology (2/77).

Recommendation, AME2

In the vocational certificate category, 12 semester hours in aircraft safety and warning systems and 4 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 12 semester hours in aircraft safety and warning systems, 4 in aviation maintenance technology, and 2 in personnel supervision, for a total of 18 semester hours (2/77).

Recommendation, AME1

In the vocational certificate category, 15 semester hours in aircraft safety and warning systems and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft safety and warning systems, 6 in aviation maintenance technology, 3 in personnel supervision, and 2 in maintenance management, for a total of 26 semester hours (2/77).

Recommendation, AMEC

In the vocational certificate category, the recommendation is the same as that for AME1. In the lower-division baccalaureate/associate degree category, 15 semester hours in aircraft safety and warning systems, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, for a total of 30 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

NER-AMH-001

AVIATION STRUCTURAL MECHANIC,
HYDRAULICS

AMH3
AMH2
AMH1
AMHC

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AMH3:* Aviation Structural Mechanic, Hydraulics, Third Class (E-4). *AMH2:* Aviation Structural Mechanic, Hydraulics, Second Class (E-5). *AMH1:* Aviation Structural Mechanic, Hydraulics, First Class (E-6). *AMHC:* Chief Aviation Structural Mechanic, Hydraulics (E-7). *AMCS:* Senior Chief Aviation Structural Mechanic (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Summary: Maintains hydraulic systems, including main and auxiliary power systems and unit actuating subsystems, landing gear (excluding wheels and tires), brakes, and related pneumatic systems; inspects, removes, and replaces components of hydraulic systems; performs preflight, postflight, and other periodic aircraft inspections. *AMH3:* Removes and installs check valves, relief valves, sequence valves, restrictors, actuating cylinders, and emergency air bottles; uses schematic diagrams, drawings, and charts to trace systems; fabricates, fits, and tests rigid tubing and flexible hose assemblies; identifies types and designations of fuel, oil, hydraulic fluids, and lubricants used in aircraft; operates ground support equipment; uses and maintains handtools; bleeds hydraulic systems; adjusts brakes and replaces linings and pucks; replaces gaskets, packings, and wipers in hydraulic components; recognizes the effects of high noise levels on the human body. *AMH2:* Able to perform the duties required for AMH3; is a first-line supervisor of a 4- to 7-person work group; adjusts and replaces hydraulic and pneumatic components of flight control systems; bleeds hydraulic power system and subsystem; removes and installs pumps, motors, pressure regulators, and recoil struts; checks, tests, adjusts, and repairs hydraulic and pneumatic components; replaces master cylinders, power brake valves, and emergency brake system components; troubleshoots malfunctions of landing gear controls, control valves, shock and recoil struts, and shimmy dampers; orders aircraft parts, tools, equipment, and material; adjusts landing gear controls, locks, doors, microswitches, and mechanical linkages. *AMH1:* Able to perform the duties required for AMH2; supervises 10- to 15-person work groups; trains personnel on aircraft hydraulic/pneumatic systems; supervises landing gear drop checks; maintains shop files of technical publications, directives, and manuals; inspects installation and evaluates operation of newly installed parts and components; supervises aircraft inspections; prepares weekly schedules of preventive maintenance; adjusts nose wheel steering mechanisms and control and actuating linkages and mechanisms. *AMHC:* Able to perform the duties required for AMH1; analyzes malfunctions of flight control systems and determines corrective action; determines the need and method for decontamination of a hydraulic system; plans and organizes work centers; provides technical assistance; prepares reports; monitors inspection procedures to ensure that technical specifications and standards of workmanship are met; prepares quarterly preventive maintenance schedules; maintains work center inventory records; estimates spare parts, supplies, equipment, and manpower requirements; diagnoses aircraft irregular flight characteristics and determines corrective action.

Recommendation, AMH3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in hydraulics systems repair and 3 in aviation maintenance technology (2/77).

Recommendation, AMH2

In the vocational certificate category, 15 semester hours in hydraulics systems repair and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in hydraulics systems repair, 6 in aviation maintenance technology, and 2 in personnel supervision, for a total of 23 semester hours (2/77).

Recommendation, AMH1

In the vocational certificate category, the recommendation is the same as that for AMH2. In the lower-division baccalaureate/associate degree category, 15 semester hours in hydraulics systems repair, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in maintenance management, for a total of 27 semester hours (2/77).

Recommendation, AMHC

In the vocational certificate category, the recommendation is the same as that for AMH2. In the lower-division baccalaureate/associate degree category, 15 semester hours in hydraulics systems repair, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, for a total of 30 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

NER-AMS-001

AVIATION STRUCTURAL MECHANIC,
STRUCTURES

AMS3
AMS2
AMS1
AMSC

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AMS3:* Aviation Structural Mechanic, Structures, Third Class (E-4). *AMS2:* Aviation Structural Mechanic, Structures, Second Class (E-5). *AMS1:* Aviation Structural Mechanic, Structured, First Class (E-6). *AMSC:* Chief Aviation Structural Mechanic, Structures (E-7). *AMCS:* Senior Chief Aviation Structural Mechanic (E-8). *AFCM:* Master Chief Aircraft Maintenanceman (E-9).

Description

Summary: Maintains aircraft fuselages, wings, fixed and movable surfaces, airfoils, empennages, seats (except ejection seats), wheels, tires, controls, and mechanisms; installs and rigs flight controls; fabricates and assembles metal parts and makes minor repairs to aircraft skin; installs rivets and metal fasteners; paints; performs dye penetrant inspections; performs daily preflight, postflight, and other periodic aircraft inspections. *AMS3:* Uses schematic diagrams, drawings, and charts; prepares layout patterns and templates for metal work; fabricates, fits, and tests rigid tubing and flexible hose assemblies; uses technical publications; uses and maintains handtools; performs hardness tests; detects corrosion and assists in correction and prevention of it; removes corrosion products from aircraft surfaces and structural members; prepares, primes, and paints aircraft surfaces; applies identification markings; builds up wheels and tires. *AMS2:* Able to perform the duties required for AMS3; assembles and installs equipment; repairs stressed and nonstressed skin; fabricates metal parts and repairs internal structural members; performs periodic aircraft inspections; orders aircraft parts, equipment, materials, and tools; applies corrosion prevention and preservation materials; treats metals chemically after corrosion removal; removes and installs special rivets, metal fasteners, flight control surfaces, and detachable aft fuselage section of aircraft; replaces panels in windshields, canopies, plastic enclosures, and windows, repairs minor surface damage to transparent plastics and breaks, cracks, and punctures in reinforced plastics; repairs leaks in integral fuel tanks; is a first-line supervisor of a 3- to 7-person work group. *AMS1:* Able to perform the duties required for AMS2; troubleshoots and corrects material failures; removes and installs wing panels and stabilizers; corrects balancing of flight control surfaces; performs alignment checks of airframes and landing gear; analyzes the extent of corrosion damage; determines repair procedures for aircraft structural damage; supervises aircraft inspections; supervises and evaluates hardness tests and dye penetrant inspections on metals; inspects installation and evaluates operation of repaired or newly installed parts and components; orders technical publications, directives, and manuals; maintains shop files of technical publications, directives, and manuals; trains personnel on aircraft structural systems; is a supervisor of a medium-sized (20-30 persons) work center. *AMSC:* Able to perform the duties required for AMS1; plans, organizes, and lays out work centers; schedules and assigns workloads; maintains work center registers, inventory records, and prepares local reports; interprets technical publications, directives, and manuals; analyzes reports of discrepancies and malfunctions and determines corrective action; monitors inspection procedures to ensure that technical specifications and standards of workmanship are met; prepares quarterly schedules of preventive maintenance; estimates aircraft spare parts, supplies, equipment, and manpower requirements; implements a program for detecting, treating, and preventing corrosion of aircraft.

Recommendation, AMS3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 8 semester hours in airframe structures repair and 2 in aviation maintenance technology or airframe structures (2/77).

Recommendation, AMS2

In the vocational certificate category, 12 semester hours in airframe structures repair and 4 in aviation maintenance technology or airframe structures. In the lower-division baccalaureate/associate degree category, 12 semester hours in airframe structures repair, 4 in aviation maintenance technology or airframe structures, and 2 in personnel supervision, for a total of 18 semester hours (2/77).

Recommendation, AMS1

In the vocational certificate category, 15 semester hours in airframe structures repair and 6 in aviation maintenance technology or airframe structures. In the lower-division baccalaureate/associate degree category, 15 semester hours in airframe structures repair, 6 in aviation maintenance technology or airframe structures, 3 in personnel supervision, and 2 in maintenance management, for a total of 26 semester hours (2/77).

Recommendation, AMSC

In the vocational certificate category, the recommendation is the same as that for AMS1. In the lower-division baccalaureate/associate degree category, 15 semester hours in airframe structures repair, 6 in aviation maintenance technology or airframe structures, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, for a total of 30 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

NER-AN-001

AIRMAN

AN

Exhibit Dates: 6/71–Present.

Career Pattern

Airman is a general rate (Naval apprenticeship) for persons at pay grades E-1 (recruit), E-2 (airman apprentice), and E-3 (airman). At pay grade E-4 (petty officer third class), the person may enter any one of the following ratings: Aircrew Survival Equipmentman (PR), Aviation Antisubmarine Warfare Technician (AX), Aviation Electrician's Mate (AE), Aviation Electronics Technician (AT), Aviation Fire Control Technician (AQ), Aviation Machinist's Mate (AD), Aviation Maintenance Administrationman (AZ), Aviation Ordnanceman (AO), Aviation Structural Mechanic (AM), Aviation Boatswain's Mate (AB), Aviation Support Equipment Technician (AS), Air Controlman (AC), Tradevman (TD), Aviation Storekeeper (AK), Photographer's Mate (PH), Aerographer's Mate (AG), or Aviation Antisubmarine Warfare Operator (AW).

Description

Assists in the maintenance of aircraft, associated aeronautical equipment, and aircraft support equipment; services, cleans, and handles aircraft; performs other apprentice-level duties involved in the operation of naval aircraft afloat and ashore.

Recommendation

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in aviation/aircraft fundamentals (2/77). NOTE: *Credit for airman (AN) should be granted only after pay grade E-3 has been achieved.*

NER-AO-001

AVIATION ORDNANCEMAN

AO3
AO2
AO1
AOC
AOCS
AOCM

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AO3:* Aviation Ordnanceman Third Class (E-4). *AO2:* Aviation Ordnanceman Second Class (E-5). *AO1:* Aviation Ordnanceman First Class (E-6). *AOC:* Chief Aviation Ordnanceman (E-7). *AOCS:* Senior Chief Aviation Ordnanceman (E-8). *AOCM:* Master Chief Aviation Ordnanceman (E-9).

Description

Summary: Maintains, inspects, and repairs aircraft armament equipment and aviation ordnance (weapons) equipment, including aircraft guns, gun accessories, noncomputing gunsights, aerial towed target equipment, small arms, ammunition, handling equipment, and ammunition suspension, release, launching, and arming equipment; stores and loads aviation ammunition, nuclear weapons, aerial mines, torpedos, air-launched guided missiles; operates small-arms ranges; supervises the operation of aviation ordnance shops and storage facilities. *AO3:* Prepares gun ammunition for loading; assembles and disassembles aircraft ordnance weapons; performs weapons maintenance; uses schematics, diagrams, and charts to trace systems; performs routine inspection of ordnance equipment; completes periodic maintenance data forms; performs electromechanical maintenance of air armament units; issues standards for safety in ordnance maintenance; operates ground support equipment; detects, removes, and controls corrosion on aircraft armament and aviation ordnance handling equipment. *AO2:* Able to perform the duties required for AO3; serves as arming/dearming crew leader; supervises and coordinates crew loading of munitions aboard aircraft; maintains shop files, logs, and records; orders technical publications and manuals; performs periodic aircraft preloading inspections. *AO1:* Able to perform the duties required for AO2; supervises the preparation of fuel, air, and gel weapons; analyzes test equipment defects; conducts on-the-job training; performs quality checks and inspections on loaded aircraft; supervises and directs aircraft inspections; prepares weekly schedules of preventive maintenance; troubleshoots release and arming systems. *AOC:* Able to perform the duties required for AO1; supervises and coordinates receipt, stowage, movement, preparation, and loading of munitions by squadron crews; interprets technical publications and instructions on the handling of aviation ordnance equipment and munitions; prepares correspondence and reports; plans, organizes, and supervises aviation ordnance shops, storage facilities, and handling areas; supervises the training of special weapons loading teams; analyzes reports and prepares schedules of preventive maintenance; accounts for inventory; evaluates assigned personnel. *AOCS:* Able to perform the duties required for AOC; supervises and coordinates all the munitions-loading crews of an airwing (several squadrons); prepares local directives and instructions; prepares correspondence; interviews, evaluates, and assigns personnel; organizes and schedules training programs and evaluates their effectiveness; administers long-range planned maintenance programs; monitors quality control programs; makes recommendations on utilization, capabilities, reliablility, and operations of airwing ordnance units. *AOCM:* Able to perform the duties required for AOCS; evaluates aviation ordnance equipment safety requirements and initiates recommendations for improvements; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; initiates action to satisfy requirements; establishes goals and priorities; reviews and evaluates space, personnel, equipment, and material requirements; provides technical information and advice on the capabilities, limitations, reliablity, and use of aviation ordnance, aircraft armament, and related equipment; evaluates the effectiveness of special weapons team training; evaluates new armament equipment and aviation ordnance materials; implements procedures for emergency storage facilities; develops operating budgets and monitors expenditures.

Recommendation, AO3

In the vocational certificate category, 3 semester hours in applied science, 3 in applied mathematics, 3 in mechanical maintenance, and 2 in blueprint reading and schematics, for a total of 11 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, and 2 in industrial safety, for a total of 8 semester hours (2/77).

Recommendation, AO2

In the vocational certificate category, 3 semester hours in applied science, 3 in applied mathematics, 3 in mechanical maintenance, 3 in basic electronics, 3 in record keeping, and 3 in blueprint reading and schematics, for a total of 18 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, 3 in basic electronics, 3 in record keeping, and 2 in industrial safety, for a total of 14 semester hours (2/77).

Recommendation, AO1

In the vocational certificate category, the recommendation is the same as that for AO2. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, 3 in basic electronics, 3 in record keeping, and 3 in industrial safety, for a total of 15 semester hours. In the upper-division baccalaureate category, 3 semester hours in instructional techniques and materials (2/77).

Recommendation, AOC

In the vocational certificate category, the recommendation is the same as that for AO2. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, 3 in basic electronics, 3 in record keeping, 3 in industrial safety, 2 in aviation management, 2 in office management, and 1 in personnel supervision, for a total of 20 semester hours. In the upper-division baccalaureate category, 3 semester hours in instructional techniques and materials and additional credit for field experience in management on the basis of institutional evaluation (2/77).

Recommendation, AOCS

In the vocational certificate category, the recommendation is the same as that for AO2. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, 3 in basic electronics, 3 in record keeping, 3 in industrial safety, 2 in aviation management, 2 in office management, and 2 in personnel supervision, for a total of 21 semester hours. In the upper-division baccalaureate category, 3 semester hours in instructional techniques and materials and 3 for field experience in management (2/77).

Recommendation, AOCM

In the vocational certificate category, 3 semester hours in applied science, 3 in applied mathematics, 3 in mechanical maintenance, 3 in basic electronics, 3 in record keeping, 3 in blueprint reading and schematics, and 3 in technical report writing, for a total of 21 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in applied physics, 3 in applied mathematics, 3 in basic electronics, 3 in record keeping, 3 in industrial safety, 3 in technical writing, 3 in aviation management, 3 in personnel supervision, and 2 in office management, for a total of 26 semester hours. In the upper-division baccalaureate category, 3 semester hours in instructional techniques and materials, 3 for field experience in management, and 3 in management problems, and additional credit in human relations and personnel management on the basis of institutional evaluation, for a minimum total of 9 semester hours (2/77).

NER-AQ-001

AVIATION FIRE CONTROL TECHNICIAN

AQ3
AQ2
AQ1
AQC
AQCS

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AQ3:* Aviation Fire Control Technician Third Class (E-4). *AQ2:* Aviation Fire Control Technician Second Class (E-5). *AQ1:* Aviation Fire Control Technician First Class (E-6). *AQC:* Chief Aviation Fire Control Technician (E-7). *AQCS:* Senior Chief Aviation Fire Control Technician (E-8). *AVCM:* Master Chief Avionics Technician (E-9).

Description

Summary: Maintains and repairs aircraft weapons control systems, including weapons control radar, computers, doppler computing sights, gyroscopes, and related equipment, and air-launched guided missile equipment. NOTE: Duty assignments are designated as either O-Level (troubleshooting and replacing modular systems on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AQ rating receive equivalent training and must pass the same advancement examination, regardless of whether duty assignments have been O-Level or I-Level or both. *AQ3:* Assists in troubleshooting and repairing electrical and electronics weapons control systems (such as radar, infrared, optical, laser, and television systems; analog and digital computers; and gyro stabilizing systems and sensing elements) and related accessories and equipment; follows standard check-out procedures to locate and repair system malfunctions; reads schematics and block diagrams; uses volt-ohm-milliammeter; applies a working knowledge of hydraulic systems; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AQ2:* Able to perform the duties required for AQ3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generators, and meggers; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising from two to three persons on a job; maintains technical library; interprets technical directives. *AQ1:* Able to perform the duties required for AQ2; serves as shift supervisor, supervising from eight to nine persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; conducts on-the-job training programs; inspects and approves completed work assignments; prepares weekly schedules of preventive maintenance. *AQC:* Able to perform the duties required for AQ1; serves as shop supervisor, supervising 15–20 persons; plans and implements safety instruction and inspection programs; prepares maintenance duty schedules; prepares periodic or recurring reports; prepares quarterly schedules of preventive maintenance; supervises quality control programs; provides technical assistance in aircraft accident investigations. *AQCS:* Able to perform the duties required for AQC; oversees three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness.

Recommendation, AQ3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory and 2 in applied physics, and additional credit in aircraft electronics and hydraulics on the basis of institutional evaluation. Qualified to enter an industrial electronics technician, communications electronics technician, or industrial instrumentation technician apprentice training program, or an apprentice training program for any electrical trade (2/77).

Recommendation, AQ2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 2 in applied physics, and 3 in introduction to AC/DC theory, and additional credit in aircraft electronics and hydraulics on the basis of institutional evaluation, for a minimum total of 8 semester hours. Advanced standing in an industrial electronics technician, communications electronics technician, or industrial instrumentation technician apprentice training program, or in an apprentice training program for any electrical trade, on the basis of employer or trade association performance evaluation (2/77).

Recommendation, AQ1

In the vocational certificate category, the recommendation is the same as that for AQ2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 2 in applied physics, 3 in introduction to AC/DC theory, 2 in personnel supervision, and 2 in maintenance management, and additional credit in aircraft electronics and hydraulics on the basis of institutional evaluation, for a minimum total of 12 semester hours. In an industrial electronics technician apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. In a communications electronics technician or industrial instrumentation technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction (2/77).

Recommendation, AQC

In the vocational certificate category, the recommendation is the same as that for AQ2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 2 in applied physics, 3 in introduction to AC/DC theory, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, and additional credit in aircraft electronics and hydraulics on the basis of institutional evaluation, for a minimum total of 17 semester hours. The recommendation for advanced standing in an apprentice training program is the same as that for AQ1 because additional skills are administrative and supervisory in nature (2/77).

Recommendation, AQCS

In the vocational certificate category, the recommendation is the same as that for AQC2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 2 in applied physics, 3 in introduction to AC/DC theory, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, 3 in management electives, 3 in safety management, and 2 in technical writing, and additional credit in aircraft electronics and hydraulics on the basis of institutional evaluation, for a minimum total of 25 semester hours. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and additional credit in human relations and quality control on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for AQ1 because additional skills are administrative and supervisory in nature (2/77).

NER-AS-001

Aviation Support Equipment
Technician
AS1
ASC
ASCS
ASCM

Exhibit Dates: 6/71–6/78.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

May progress from: ASE2, Aviation Support Equipment Technician, Electrical, Second Class (E-5); *or* ASH2, Aviation Support Equipment Technician Hydraulics and Structures, Second Class (E-5); *or* ASM2, Aviation Support Equipment Technician, Mechanical, Second Class (E-5). *AS1:* Aviation Support Equipment Technician, First Class (E-6). *ASC:* Chief Aviation Support Equipment Technician (E-7). *ASCS:* Senior Chief Aviation Support Equipment Technician (E-8). *ASCM:* Master Chief Aviation Support Equipment Technician (E-9).

Description

AS1: Able to perform the duties of ASE2 or ASM2 or ASH2; analyzes and diagnoses malfunctions of the following systems: hydraulics, pneumatic, electrical power generating, chassis and chassis electrical, internal-combustion engines, air-conditioning, and gas-turbine compressors; determines corrective action; maintains shop files and technical publications; plans shop work schedule; supervises subordinates; performs quality control inspections; prepares schedules of preventive maintenance; requisitions and is responsible for materials and equipment. *ASC:* Able to perform the duties required for AS1; supervises training of personnel who operate, maintain, and repair aviation support equipment; coordinates administration, planning, and workload scheduling; organizes facilities for repair and maintenance of equipment and components; is responsible for ordering, storing, and inventorying materials and supplies for organizational units. *ASCS:* Able to perform the duties required for ASC; is responsible for the administrative function of the organizational unit; organizes, schedules, and evaluates training; reviews, evaluates, and recommends improvements to maintenance procedures; administers long-range maintenance program. *ASCM:* Able to perform the duties required for ASCS; responsible for the administration of assigned organizational unit, including planning, organizing and implementing activities in compliance with policy statements; reviews personnel, equipment and material requirements; establishes objectives and sets priorities in area of responsibility; evaluates and monitors maintenance planning and quality control programs; develops operating budget and monitors expenditures; assists in formulating and implementing the safety program; provides technical information and assistance to subordinates; prepares maintenance evaluation and staff studies.

Recommendation, AS1

In the vocational certificate category, use the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001, *or* the 18 semester hours for ASH2 (Aviation Support Equipment Technician, Hydraulics and Structures, Second Class) in exhibit NER-ASH-001, *or* the 21 semester hours for ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-001, as appropriate, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, hydraulic brakes, diesel engines, gas welding, electric welding, inert-gas welding, and power transmissions, on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 2 semester hours in personnel supervision, 1 in shop management, and 1 in record keeping, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, hydraulic brakes, diesel engines, gas welding, electric welding, inert-gas welding, and power transmissions on the basis of institutional evaluation, for a minimum total of 4 semester hours; add the 19 semester hours for ASE2 in exhibit NER-ASE-001, for a minimum total of 23 semester hours, *or* the 18 semester hours for ASH2 in exhibit NER-ASH-001, for a minimum total of 22 semester hours, *or* the 21 semester hours for ASM2 in exhibit NER-ASM-001, for a minimum total of 25 semester hours, as appropriate (2/77).

Recommendation, ASC

In the vocational certificate category, the recommendation is the same as that for AS1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 2 in shop management, and 2 in record keeping, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, hydraulic brakes, diesel engines, gas welding, electric welding, inert-gas welding, and power transmissions on the basis of institutional evaluation, for a minimum total of 7 semester hours; *add* the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001, for a minimum total of 26 semester hours, *or* the 18 semester hours for ASH2 (Aviation Support Equipment Technician, Hydraulics and Structures, Second Class) in exhibit NER-ASH-001, for a minimum total of 25 semester hours, *or* the 21 semester hours for ASM2 (Aviation Support Technician, Mechanical, Second Class) in exhibit NER-ASM-001, for a minimum total of 28 semester hours, as appropriate (2/77).

Recommendation, ASCS

In the vocational certificate category, the recommendation is the same as that for AS1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, 2 in record keeping, and 2 in shop management, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, hydraulic brakes, diesel engines, gas welding, electric welding, inert-gas welding, and power transmissions on the basis of institutional evaluation, for a minimum total of 10 semester hours; *add* the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001, for a minimum total of 29 semester hours, *or* the 18 semester hours for ASH2 (Aviation Support Equipment Technician, Hydraulics and Structures, Second Class) in exhibit NER-ASH-001, for a minimum total of 28 semester hours, *or* the 21 semester hours for ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-001, for a minimum total of 25 semester hours, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

Recommendation, ASCM

In the vocational certificate category, the recommendation is the same as that for AS1. In the lower-division baccalaureate/associate degree category, 3 semester hours in personnel supervision, 3 in maintenance management, 3 in introduction to management, 2 in record keeping, and 2 in shop management, and additional credit in basic electricity, automotive electricity, electrical control systems, power generator systems, hydraulics, hydraulic brakes, diesel engines, gas welding, electric welding, inert-gas welding, and power transmissions on the basis of institutional evaluation, for a minimum total of 13 semester hours; *add* the 19 semester hours for ASE2 (Aviation Support Equipment Technician, Electrical, Second Class) in exhibit NER-ASE-001, for a minimum total of 32 semester hours, *or* the 18 semester hours for ASH2 (Aviation Support Equipment Technician, Hydraulics and Structures, Second Class) in exhibit NER-ASH-001, for a minimum total of 31 semester hours, or the 21 semester hours for ASM2 (Aviation Support Equipment Technician, Mechanical, Second Class) in exhibit NER-ASM-001, for a minimum total of 34 semester hours, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (2/77).

NER-AS-002

AVIATION SUPPORT EQUIPMENT
TECHNICIAN

AS1
ASC
ASCS
ASCM

Exhibit Dates: 7/78-Present. Pending evaluation.

NER-ASE-001

AVIATION SUPPORT EQUIPMENT
TECHNICIAN, ELECTRICAL

ASE3
ASE2

Exhibit Dates: 6/71-6/78.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ASE3:* Aviation Support Equipment Technician, Electrical, Third Class (E-4). *ASE2:* Aviation Support Equipment Technician, Electrical, Second Class (E-5). *AS1:* Aviation Support Equipment Technician, First Class (E-6). *ASC:* Chief Aviation Support Equipment Technician (E-7). *ASCS:* Senior Chief Aviation Support Equipment Technician (E-8). *ASCM:* Master Chief Aviation Support Equipment Technician (E-9).

Description

Summary: Services, tests, maintains and repairs automotive electrical systems in mobile and self-propelled aviation support equipment, electrical components and wiring in auxiliary electrical power units used in servicing aircraft, electrical control systems in gas-turbine compressor units and air-conditioning systems, and electrical and electronic circuits and components in general aircraft servicing equipment. *ASE3:* Uses precision measuring equipment, electrical test equipment and internal-combustion-engine analyzers; repairs motors and generators; replaces electrical components of power-generating units and air-conditioning systems; tests, services, and installs storage batteries; tests, replaces, and adjusts voltage regulators; repairs, removes, and installs components of ignition and starting systems; identifies characteristics of electrical and electronic circuit parts; uses maintenance publications; completes maintenance records; uses and maintains handtools and hoisting and lifting devices. *ASE2:* Able to perform the duties required for ASE3; tests, adjusts, and repairs electrical components of power-generating units; performs electrical load bank checks and repairs and adjusts transformer rectifier units; repairs malfunctioning electrical components of air-conditioning systems; performs tests; locates malfunctions, and makes adjustments on gas-turbine compressors utilizing gas-turbine compressor analyzer.

Recommendation, ASE3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in automotive electricity, 4 in basic shop practices, 3 in basic electricity, and 2 in care and use of tools, for a total of 13 semester hours (2/77).

Recommendation, ASE2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in automotive electricity, 4 in basic shop practices, 3 in basic electricity, 3 in power generator systems, 3 in electrical control systems, and 2 in care and use of tools, for a total of 19 semester hours (2/77).

NER-ASE-002

AVIATION SUPPORT EQUIPMENT
TECHNICIAN, ELECTRICAL

ASE3
ASE2

Exhibit Dates: 7/78-Present. Pending evaluation.

NER-ASH-001

AVIATION SUPPORT EQUIPMENT
TECHNICIAN, HYDRAULICS AND
STRUCTURES

ASH3
ASH2

Exhibit Dates: 6/71-6/78. (Effective 7/78, the ASH rating was discontinued and its duties were incorporated into ASM (Aviation Support Equipment Technician, Mechanical.)

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ASH3:* Aviation Support Equipment Technician, Hydraulics and Structures, Third Class (E-4). *ASH2:* Aviation Support Equipment Technician, Hydraulics and Structures, Second Class (E-5). *AS1:* Aviation Support Equipment Technician, First Class (E-6). *ASC:* Chief Aviation Support Equipment Technician (E-7). *ASCS:* Senior Chief Aviation Support Equipment Technician (E-8). *ASCM:* Master Chief Aviation Support Equipment Technician (E-9).

Description

Summary: Services, tests, maintains, and repairs hydraulic and pneumatic systems and structural components of aviation support equipment; maintains hydraulic test and service equipment, air compressors, jacks, work stands, and associated equipment; performs body and fender metal work and painting of aviation support equipment; welds, brazes, solders, cuts, shapes, and patches metal; adjusts and repairs brake systems. *ASH3:* Uses mechanical precision measuring equipment, electrical test equipment, hydraulic and pneumatic test equipment, gauges, meters, and hydraulic test stands; uses and maintains hand tools; replaces seals, packings, tubing, and flexible hoses in hydraulic systems; repairs, removes, and installs hydraulic and pneumatic system components; bleeds and flushes hydraulic systems; performs structural repair; welds with electrical and oxyacetylene equipment; brazes and solders; paints support equipment; uses maintenance publications; completes maintenance records; identifies types and designations of fuels, hydraulic fluids, coolants, and lubricants. *ASH2:* Able to perform the duties required for ASH3; diagnoses hydraulic test equipment malfunctions; adjusts valves and regulators in hydraulic and pneumatic systems; performs equipment modifications in hydraulic and pneumatic systems; analyzes hydraulic fluid for contamination; welds with inert-gas welding equipment.

Recommendation, ASH3

In the vocational certificate category or the lower-division baccalaureate/associate degree category, 6 semester hours in gas and electric welding, 4 in hydraulics, 4 in basic shop practices, and 2 in care and use of tools, for a total of 16 semester hours (2/77).

Recommendation, ASH2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in gas and electric welding, 4 in hydraulics, 4 in basic shop practices, 2 in inert-gas welding, and 2 in care and use of tools, for a total of 18 semester hours (2/77).

NER-ASM-001

AVIATION SUPPORT EQUIPMENT
TECHNICIAN, MECHANICAL

ASM3
ASM2

Exhibit Dates: 6/71-6/78.

Occupational Field: 6 (Aviation Ground Support).

Career Pattern

AN: Airman (E-3). *ASM3:* Aviation Support Equipment Technician, Mechanical, Third Class (E-4). *ASM2:* Aviation Support Equipment Technician, Mechanical, Second Class (E-5). *AS1:* Aviation Support Equipment Technician, First Class (E-6). *ASC:* Chief Aviation Support Equipment Technician (E-7). *ASCS:* Senior Chief Aviation Support Equipment Technician (E-8). *ASCM:* Master Chief Aviation Support Equipment Technician (E-9).

Description

Summary: Services, tests, maintains, and repairs gasoline and diesel engines in mobile and self-propelled aviation support equipment and associated automotive systems, including fuel systems, automatic and power transmissions, differentials, and steering systems; maintains gas-turbine compressor units and air-conditioning systems used in servicing aircraft. *ASM3:* Uses mechanical precision measuring equipment, electrical test equipment, and internal-combustion-engine analyzers; uses and maintains hand tools; replaces seals, packings, tubing, and flexible hoses in hydraulic systems; removes electromechanical and cooling system components; services, adjusts, and repairs hydraulic, pneumatic, and mechanical brakes; performs minor engine tune-up; welds with oxyacetylene equipment; uses maintenance publications; completes maintenance records. *ASM2:* Able to perform the duties required for ASM3; uses gas-turbine analyzers; diagnoses malfunctions of internal-combustion engines; grinds valves and overhauls internal-combustion engines; performs major engine tune-ups; repairs and adjusts transmissions and differentials; performs steering and front-end alignment; adjusts and maintains air-conditioning systems; inspects compressors and turbines; makes adjustments on gas-turbine compressors.

Recommendation, ASM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in basic shop practices, 3 in diesel engines, 3 in hydraulic brakes, and 2 in care and use of tools, for a total of 12 semester hours (2/77).

Recommendation, ASM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in diesel engines, 4 in basic shop practices, 3 in hydraulic brakes, 3 in power transmissions, 3 in gas welding, and 2 in care and use of tools, for a total of 21 semester hours (2/77).

NER-ASM-002

AVIATION SUPPORT EQUIPMENT
TECHNICIAN, MECHANICAL
ASM3
ASM2

Exhibit Dates: 7/78-Present. Pending evaluation.

NER-AT-001

AVIATION ELECTRONICS TECHNICIAN
AT3
AT2
AT1
ATC
ATCS

Exhibit Dates: 6/71-Present.

Occupational Field: 5 (Aviation Maintenance Weapons).

Career Pattern

AN: Airman (E-3). *AT3:* Aviation Electronics Technician Third Class (E-4). *AT2:* Aviation Electronics Technician Second Class (E-5). *AT1:* Aviation Electronics Technician First Class (E-6). *ATC:* Chief Aviation Electronics Technician (E-7). *ATCS:* Senior Chief Aviation Electronics Technician (E-8). *AVCM:* Master Chief Avionics Technician (E-9).

Description

Summary: Maintains and repairs electronic communications systems and in-flight navigation and detection systems on aircraft. NOTE: Duty assignments are designated as either O-Level (troubleshooting and replacing modular systems on aircraft) or I-Level (disassembling, repairing, and bench-testing modules); persons assigned the AT rating receive equivalent training and must pass the same advancement examinations, regardless of whether duty assignments have been O-Level or I-Level or both. *AT3:* Assists in troubleshooting and repairing radar systems, radar and tactical displays, IFF/SIF equipment, radar altimeters, doppler navigation equipment, radio navigation equipment, analog computing devices, communications systems, CIC and electronics countermeasures equipment, infrared devices, recorder systems, and aircraft digital data systems; follows standard check-out procedures to locate and repair malfunctions; reads schematics and block diagrams; uses volt-ohm-milliammeter, frequency counters, and specialized system test equipment; completes maintenance forms and inventories parts and supplies; performs avionics corrosion control. *AT2:* Able to perform the duties required for AT3; performs troubleshooting and repair tasks not covered in standard service manuals; knows how to use oscilloscope, signal generators, and megger; may have attended short training programs in troubleshooting and repairing specialized equipment; serves as crew leader, supervising from two to three persons on a job; maintains technical library and inventory records; inspects, tests, and maintains aircraft transmission lines and antennas. *AT1:* Able to perform the duties required for AT2; serves as shift supervisor, supervising from eight to nine persons; diagnoses nonroutine malfunctions and demonstrates repair techniques; inspects and approves completed work assignments, including the installation of new parts and components; conducts on-the-job training program and maintains training records; prepares weekly schedules of preventive maintenance. *ATC:* Able to perform the duties required for AT1; serves as shop supervisor, supervising 15-20 persons; plans and implements safety instruction and inspection programs; prepares maintenance duty schedules; prepares periodic or recurring reports; prepares quarterly schedules of preventive maintenance; supervises quality control programs; provides technical assistance in aircraft accident investigations. *ATCS:* Able to perform the duties required for ATC; oversees three shops; serves as liaison with other Navy units; administers quality control programs; prepares directives, instructions, and correspondence; advises on personnel, production, material, and training requirements; administers long-range planned maintenance program and training programs and evaluates their effectiveness; recommends changes in methods and techniques to promote safety and operational readiness.

Recommendation, AT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 1 in applied physics, and 12 in avionics technology, and additional credit in avionics technology on the basis of institutional evaluation, for a minimum total of 16 semester hours. Qualified to enter an industrial or communications electronics technician apprentice training program (2/77).

Recommendation, AT2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical-electronics laboratory, 1 in applied physics, 3 in introduction to AC/DC theory, and 12 in avionics technology, and additional credit in avionics technology on the basis of institutional evaluation, for a minimum total of 19 semester hours. Advanced standing in a communications electronics technician apprentice training program on the basis of employer or trade association performance examination; qualified to enter an industrial electronics technician apprentice training program (2/77).

Recommendation, AT1

In the vocational certificate category, the recommendation is the same as that for AT2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 1 in applied physics, 3 in introduction to AC/DC theory, 12 in avionics technology, 2 in personnel supervision, and 2 in maintenance management, and additional credit in avionics technology on the basis of institutional evaluation, for a minimum total of 23 semester hours. In a communications electronics technician apprentice training program, 4,000 clock hours of experience and 288 contact hours of related instruction. In an industrial electronics technician apprentice training program, 2,000 clock hours of experience and 144 contact hours of related instruction (2/77).

Recommendation, ATC

In the vocational certificate category, the recommendation is the same as that for AT2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 1 in applied physics, 3 in introduction to AC/DC theory, 12 in avionics technology, 3 in personnel supervision, 3 in maintenance management, and 3 in shop management, and additional credit in avionics technology on the basis of institutional evaluation, for a minimum total of 28 semester hours. The recommendation for advanced standing in an apprentice training program is the same as that for AT1 because additional skills are administrative and supervisory in nature (2/77).

Recommendation, ATCS

In the vocational certificate category, the recommendation is the same as that for AT2. In the lower-division baccalaureate/associate degree category, 3 semester hours in beginning electrical/electronics laboratory, 1 in applied physics, 3 in introduction to AC/DC theory, 12 in avionics technology, 3 in personnel supervision, 3 in maintenance management, 3 in shop management, 3 in management electives, 3 in safety management, and 2 in technical writing, and additional credit in avionics technology on the basis of institutional evaluation, for a minimum total of 36 semester hours. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and additional credit in human relations and quality control on the basis of institutional evaluation. The recommendation for advanced standing in an apprentice training program is the same as that for AT1 because additional skills are administrative and supervisory in nature (2/77).

NER-AV-001

AVIONICS TECHNICIAN, MASTER CHIEF
AVCM

Exhibit Dates: 6/71-Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

May progress to AVCM, Master Chief Avionics Technician (E-9), from: AXCS, Senior Chief Aviation Antisubmarine Warfare Technician (E-8); AECS, Senior Chief Aviation Electrician's Mate (E-8); ATCS, Senior Chief Aviation Electronics Technician (E-8); or AQCS, Senior Chief Aviation Fire Control Technician (E-8).

Description

Able to perform the duties required for AXCS (Senior Chief Aviation Antisubmarine Warfare Technician), AECS (Senior Chief Aviation Electrician's Mate), ATCS (Senior Chief Aviation Electronics Technician), or AQCS (Senior Chief Aviation Fire Control Technician); plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; plans and initiates actions to satisfy requirements; establishes goals and priorities; reviews and evaluates personnel, equipment, and material requirements; prepares maintenance plans and staff studies for management review; exercises techniques of aircraft maintenance and personnel management; develops and implements preventive maintenance, corrosion control, and quality assurance programs; develops operating budget and monitors expenditures.

Recommendation

In the vocational certificate category, use the recommendation for AE1 (Aviation Electrician's Mate First Class) in exhibit NER-AE-001, *or* AT2 (Aviation Fire Control Technician Second Class) in exhibit NER-AT-001, AQ2 (Aviation Fire Control Technician Second Class) in exhibit NER-AQ-001, *or* AX1 (Aviation Antisubmarine Warfare Technician, First Class) in exhibit NER-AX-001, as appropriate. In the lower-division baccalaureate/associate degree category, *add* 1 semester hour in technical writing to the recommendation for AECS (Senior Chief Aviation Electrician's Mate) in exhibit NER-AE-001 *or* ATCS (Senior Chief Aviation Electronics Technician) in exhibit NER-AT-001 *or* AQCS (Senior Chief Aviation Fire Control Technician) in exhibit NER-AQ-001, *or* AXC (Chief Aviation Antisubmarine Warfare Technician) in exhibit NER-AX-001, as appropriate. In the upper-division baccalaureate category, 6 semester hours for a practicum in management, 3 in management problems, and 3 in human relations, and additional credit in quality control on the basis of institutional evaluation, for a minimum total of 12 semester hours (2/77).

NER-AW-001

AVIATION ANTISUBMARINE WARFARE OPERATOR (ACOUSTIC)

AW3
AW2
AW1
AWC
AWCS
AWCM

Exhibit Dates: 1/75-Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AW3:* Aviation Antisubmarine Warfare Technician, Third Class (E-4). *AW2:* Aviation Antisubmarine Warfare Technician, Second Class (E-5). *AW1:* Aviation Antisubmarine Warfare Technician, First Class (E-6). *AWC:* Chief Aviation Antisubmarine Warfare Technician (E-7). *AWCS:* Senior Chief Aviation Antisubmarine Warfare Technician (E-8). *AWCM:* Master Chief Aviation Antisubmarine Warfare Technician (E-9).

Description

Note: The AW rating is divided into three sections: Acoustic, Non-Acoustic, and Helicopter; the AW (Non-Acoustic) exhibit is NER-AW-002; the AW (Helicopter) exhibit is NER-AW-003. *Summary:* Performs general flight crew duties; operates antisubmarine warfare equipment. *AW3:* Operates various acoustic sensors in order to discover and track submarines; identifies and classifies targets; identifies sounds produced by surface ships, submarines, marine life, and other natural phenomena; determines acoustic energy propagation characteristics under various oceanographic conditions. *AW2:* Able to perform the duties required for AW3; identifies submarine evasion tactics; classifies targets in more detail than an AW3 and has a fuller understanding of the ocean environment on antisubmarine warfare data. *AW1:* Able to perform the duties required for AW2; may serve as an instructor; performs reconstruction of antisubmarine tactical exercises; navigates using airborne radar; has knowledge of non-acoustic antisubmarine warfare; analyzes in multi-target situations; supervises and instructs personnel in use of equipment. *AWC:* Able to perform the duties required for AW1; conducts airborne exercises which include the use of both acoustic and non-acoustic equipment; assists in establishing tactical procedures. *AWCS:* Able to perform the duties required for AWC; analyzes and evaluates operational efficiency for each aircrew; determines adequate areas of operation and training; performs the duties of squadron operations department manager; supervises an antisubmarine warfare division; prepares correspondence; organizes and schedules training programs. *AWCM:* Able to perform the duties required for AWCS; perform as antisubmarine warfare training coordinator; plans, organizes, implements, and controls activities in compliance with policy statements; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, AW3 (Acoustic)

In the lower-division baccalaureate/associate degree category, 3 semester hours in survey of oceanography (8/79).

Recommendation, AW2 (Acoustic)

In the lower-division baccalaureate/associate degree category, 4 semester hours in survey of oceanography. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AW1 (Acoustic)

In the lower-division baccalaureate/associate degree category, 5 semester hours in survey of oceanography, 2 in survey of meteorology, and 3 in personnel supervision, for a total of 10 semester hours. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWC (Acoustic)

In the lower-division baccalaureate/associate degree category, 5 semester hours in oceanography, 3 in meteorology, 3 in personnel supervision, and 3 in human relations, for a total of 14 semester hours. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWCS (Acoustic)

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 for management problems, for a minimum total of 9 semester hours; *if served as an instructor,* 3 semester hours for a practicum in teaching, for a total of 12 semester hours (8/79).

Recommendation, AWCM (Acoustic)

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems, for a minimum total of 12 semester hours; *if served as an instructor,* 3 semester hours for a practicum in teaching, for a total of 15 semester hours (8/79).

NER-AW-002

AVIATION ANTISUBMARINE WARFARE OPERATOR (NON-ACOUSTIC)

AW3
AW2
AW1
AWC
AWCS
AWCM

Exhibit Dates: 1/75-Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AW3:* Aviation Antisubmarine Warfare Technician, Third Class (E-4). *AW2:* Aviation Antisubmarine Warfare Technician, Second Class (E-5). *AW1:* Aviation Antisubmarine Warfare Technician, First Class (E-6). *AWC:* Chief Aviation Antisubmarine Warfare Technician (E-7). *AWCS:* Senior Chief Aviation Antisubmarine Warfare Technician (E-8). *AWCM:* Master Chief Aviation Antisubmarine Warfare Technician (E-9).

Description

Note: The AW rating is divided into three sections: Acoustic, Non-Acoustic, and Helicopter; the AW (Acoustic) exhibit is NER-AW-001; the AW (Helicopter) exhibit is NER-AW-003. *Summary:* Performs general flight crew duties; operates antisubmarine warfare equipment. *AW3:* Operates equipment to detect submarines by electromagnetic or infrared means; operates airborne radar to detect, identify, and interpret targets, and to avoid hazardous weather; advises pilot of expected weather conditions. *AW2:* Able to perform the duties required for AW3; identifies submarine evasion tactics; interprets effects of deception devices. *AW1:* Able to perform the duties required for AW2; performs reconstruction of airborne antisubmarine warfare tactical exercises; navigates using airborne radar; instructs personnel in the tactical use of airborne antisubmarine warfare equipment; may serve as an instructor; supervises and instructs personnel in use of equipment. *AWC:* Able to perform the duties required for AW1; conducts airborne exercises which include the use of both acoustic and non-acoustic equipment; assists in establishing tactical procedures. *AWCS:* Able to perform the duties required for AWC; analyzes and evaluates operational efficiency for each aircrew; determines adequate areas of operation and training; performs the duties of squadron operations department manager; supervises an antisubmarine warfare division; prepares correspondence; organizes and schedules training programs. *AWCM:* Able to perform the duties required for AWCS; perform as antisubmarine warfare training coordinator; plans, organizes, implements, and controls activities in compliance with policy statements; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, AW3 (Non-Acoustic)

In the lower-division baccalaureate/associate degree category, 2 semester hours in survey of meteorology (8/79).

Recommendation, AW2 (Non-Acoustic)

In the lower-division baccalaureate/associate degree category, 3 semester hours in survey of meteorology. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AW1 (Non-Acoustic)

In the lower-division baccalaureate/associate degree category, 4 semester hours in survey of meteorology, 3 in survey of oceanography, and 3 in personnel supervision, for a total of 10 semester hours. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWC (Non-Acoustic)

In the lower-division baccalaureate/associate degree category , 4 semester hours in survey of meteorology, 4 in survey of oceanography, 3 in personnel supervision, and 3 in human relations, for a total of 14 semester hours. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWCS (Non-Acoustic)

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems, for a minimum total of 9 semester hours; *if served as an instructor,* 3 semester hours for a practicum in teaching, for a total of 12 semester hours (8/79).

Recommendation, AWCM (Non-Acoustic)

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems, for a minimum total of 12 semester hours; *if served as an instructor,* 3 semester hours for a practicum in teaching, for a total of 15 semester hours (8/79).

NER-AW-003

AVIATION ANTISUBMARINE WARFARE OPERATOR (HELICOPTER)

AW3
AW2
AW1
AWC
AWCS
AWCM

Exhibit Dates: 1/75–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AW3:* Aviation Antisubmarine Warfare Technician, Third Class (E-4). *AW2:* Aviation Antisubmarine Warfare Technician, Second Class (E-5). *AW1:* Aviation Antisubmarine Warfare Technician, First Class (E-6). *AWC:* Chief Aviation Antisubmarine Warfare Technician (E-7). *AWCS:* Senior Chief Aviation Antisubmarine Warfare Technician (E-8). *AWCM:* Master Chief Aviation Antisubmarine Warfare Technician (E-9).

Description

Note: The AW rating is divided into three sections: Acoustic, Non-Acoustic, and Helicopter; the AW (Acoustic) exhibit is NER-AW-001; the AW (Non-Acoustic) exhibit is NER-AW-002. *Summary:* Performs general flight crew duties; operates antisubmarine warfare equipment. *AW3:* Uses both acoustic and non-acoustic devices to detect and track submarines; serves as crewman on a helicopter; uses airborne radar to detect, identify, and intercept targets, and avoid hazardous weather; uses airborne sonar to detect, classify, and track; identifies sounds produced by surface ships, submarines, evasion devices, marine life, and other natural phenomena. *AW2:* Able to perform the duties required for AW3; operates equipment and interprets results; identifies submarine evasion tactics; interprets effects of deception devices. *AW1:* Able to perform the duties required for AW2; may serve as an instructor; performs reconstruction of helicopter tactical exercises; analyzes multitarget situations; supervises and instructs personnel in use of equipment. *AWC:* Able to perform the duties required for AW1; conducts airborne exercises which include the use of both acoustic and non-acoustic equipment; assists in establishing tactical procedures. *AWCS:* Able to perform the duties required for AWC; analyzes and evaluates operational efficiency for each aircrew; determines adequate areas of operation and training; performs the duties of squadron operations department manager; supervises an antisubmarine warfare division; prepares correspondence; organizes and schedules training programs. *AWCM:* Able to perform the duties required for AWCS; performs as antisubmarine warfare training coordinator; plans, organizes, implements, and controls activities in compliance with policy statements; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, AW3 (Helicopter)

In the lower-division baccalaureate/associate degree category, 3 semester hours in emergency medical techniques, 2 in survey of meteorology, and 3 in survey of oceanography, for a total of 8 semester hours (8/79).

Recommendation, AW2 (Helicopter)

In the lower-division baccalaureate/associate degree category, 4 semester hours in emergency medical techniques, 2 in survey of meteorology, and 4 in survey of oceanography, for a total of 10 semester hours. In the upper-division baccalaureate category, *if served as instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AW1 (Helicopter)

In the lower-division baccalaureate/associate degree category, 5 semester hours in emergency medical techniques, 2 in survey of meteorology, 5 in survey of oceanography, and 3 in personnel supervision, for a total of 15 semester hours. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWC (Helicopter)

In the lower-division baccalaureate/associate degree category, 5 semester hours in emergency medical techniques, 2 in survey of meteorology, 5 in survey of oceanography, 3 in personnel supervision, and 3 in human relations, for a total of 18 semester hours. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AWCS (Helicopter)

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems, for a minimum total of 9 semester hours; *if served as an instructor,* 3 semester hours for a practicum in teaching, for a total of 12 semester hours (8/79).

Recommendation, AWCM (Helicopter)

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AWC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, 3 in personnel management, and 3 in management problems, for a minimum total of 12 semester hours; *if served as an instructor,* 3 semester hours for a practicum in teaching, for a total of 15 semester hours (8/79).

NER-AX-001

AVIATION ANTISUBMARINE WARFARE TECHNICIAN

AX3
AX2
AX1
AXC
AXCS

Exhibit Dates: 1/75–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AX3:* Aviation Antisubmarine Warfare Technician, Third Class (E-4). *AX2:* Aviation Antisubmarine Warfare Technician, Second Class (E-5). *AX1:* Aviation Antisubmarine Warfare Technician, First Class (E-6). *AXC:* Chief Aviation Antisubmarine Warfare Technician (E-7). *AXCS:* Senior Chief Aviation Antisubmarine Warfare Technician (E-8). *AVCM:* Master Chief Avionics Technician (E-9).

Description

Summary: Inspects and performs maintenance and in-flight repair on aviation antisubmarine warfare sensor equipment and associated integrated systems, including those relating to Magnetic Anomaly Detection, underwater detection, acoustic analysis, electronic support measures, computer/data processing, electro-optics, data display, data link, and electro/mechanical recorders; operates and maintains associated test equipment. *AX3:* Performs routine maintenance and replaces defective parts; performs operational ground checks and assists in repair of avionics equipment; assists in maintaining technical library and instrument records. *AX2:* Able to perform the duties required for AX3; tests and repairs avionics equipment, including printed circuits and modules used in computer and radar devices; tests and repairs electronic countermeasures (ECM) equipment, underwater detection equipment and data link devices; performs collateral duty inspections and minimum performance checks; debriefs flight crews; interprets technical directives, and monitors avionics corrosion control. *AX1:* Able to perform the duties required for AX2; inspects installation and evaluates performance of repaired or new avionics devices; analyzes operation of avionics units and isolates equipment malfunctions; supervises maintenance actions and performs qualitative tests; maintains training records and supervises maintenance of technical library; prepares weekly schedules of maintenance and inspects quality of work performed to determine effectiveness and take corrective action. *AXC:* Able to perform the duties required for AX1; prepares and completes periodic reports and evaluates performance of personnel; maintains custody of records and supervises facilities for repair of equipment; prepares maintenance schedules; supervises work center quality assurance programs and provides technical assistance in aircraft accident investigations. *AXCS:* Able to perform the duties required for AXC; prepares local directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements programs for interviewing, evaluating and assigning personnel to assure maximum utilization; advises supervisory personnel on production, personnel, material, and training programs; organizes and schedules training programs, evaluates effectiveness and initiates improvements; administers long-range planned maintenance programs and monitors effectiveness of quality assurance programs.

Recommendation, AX3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in troubleshooting techniques, and 2 in introduction to physics, for a total of 7 semester hours (8/79).

Recommendation, AX2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 3 in troubleshooting techniques, 2 in introduction to physics, and 2 in AC/DC circuit theory, for a total of 10 semester hours. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AX1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 4 in troubleshooting techniques, 2 in introduction to physics, 3 in AC/DC circuit theory and 3 in personnel supervision, for a total of 15 semester hours. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AXC

In the vocational certificate category, the recommendation is the same as that for AX1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 4 in troubleshooting techniques, 2 in introduction to physics, 3 in AC/DC circuit theory, 3 in personnel supervision, and 3 in human relations, for a total of 18 semester hours. In the upper-division baccalaureate category, *if served as an instructor,* 3 semester hours for a practicum in teaching (8/79).

Recommendation, AXCS

In the vocational certificate category, the recommendation is the same as that for AX1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for AXC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in personnel management, and 3 in management problems, for a minimum total of 9 semester hours; *if served as an instructor,* 3 semester hours for a practicum in teaching, for a total of 12 semester hours (8/79).

NER-AZ-001

AVIATION MAINTENANCE ADMINISTRATIONMAN

AZ3
AZ2
AZ1
AZC
AZCS
AZCM

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *AZ3:* Aviation Maintenance Administrationman Third Class (E-4). *AZ2:* Aviation Maintenance Administrationman Second Class (E-5). *AZ1:* Aviation Maintenance Administrationman First Class (E-6). *AZC:* Chief Aviation Maintenance Administrationman (E-7). *AZCS:* Senior Chief Aviation Maintenance Administrationman (E-8). *AZCM:* Master Chief Aviation Maintenance Administrationman (E-9).

Description

Summary: Performs or supervises clerical duties including typewriting, office machine operations, preparation of correspondence and reports, filing, and records administration for the Navy aviation maintenance program. *AZ3:* Types correspondence and reports (a straight-copy typing rate of at least 20 words per minute is required); uses duplicating or photocopy equipment; maintains files and a technical library. *AZ2:* Able to perform the duties required for AZ3; prepares, verifies, and maintains aircraft logs and records; prepares and processes work requests; determines the need for updating aeronautical technical libraries and distributes updates. *AZ1:* Able to perform the duties required for AZ2; supervises administrative procedures of the office; analyzes data; prepares data in narrative, tabular, chart, or graphic form. *AZC:* Able to perform the duties required for AZ1; schedules aircraft and equipment for maintenance; coordinates unscheduled maintenance actions; screens and interprets messages and instructions; analyzes reports; determines data requirements for aircraft maintenance activities. *AZCS:* Able to perform the duties required for AZC; determines personnel and material needs; prepares directives and instructions for improving operations; develops a program for interviewing, evaluating, and assigning personnel for maximum utilization; organizes, schedules, and evaluates training programs; develops objectives for preventive maintenance and quality assurance programs; coordinates the preparation and dissemination of safety instructions applicable to aviation maintenance; provides information and advice on utilization, capabilities, reliability, and operations. *AZCM:* Able to perform the duties required for AZCS; formulates guidelines for safety and assists in the analysis of aircraft accident reports; forecasts future requirements; plans and initiates action to satisfy requirements; establishes goals and priorities; reviews and evaluates space, personnel, equipment, and material requirements; recommends, prepares, and submits aviation maintenance staff studies; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; plans and forecasts workload requirements; administers aircraft and component inventory, requisition, receipt, transfer, and survey; develops operating budgets and monitors expenditures.

Recommendation, AZ3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, and 2 in clerical office procedures, and additional credit in typewriting on the basis of institutional evaluation, for a minimum total of 6 semester hours (2/77).

Recommendation, AZ2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, and 3 in record keeping, and additional credit in typewriting on the basis of institutional evaluation, for a minimum total of 10 semester hours (2/77).

Recommendation, AZ1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping and 3 in office management, and additional credit in typewriting on the basis of institutional evaluation, for a total of 13 semester hours (2/77).

Recommendation, AZC

In the vocational certificate category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, 3 in office management, and 2 in business communications, and additional credit in typewriting on the basis of institutional evaluation, for a minimum total of 15 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, 3 in office management, 2 in business communications, and 1 in personnel supervision, and additional credit in typewriting on the basis of institutional evaluation, for a minimum total of 16 semester hours (2/77).

Recommendation, AZCS

In the vocational certificate category, the recommendation is the same as that for AZC. In the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, 3 in office management, 2 in business communications, and 2 in personnel supervision, and additional credit in typewriting on the basis of institutional evaluation, for a minimum total of 17 semester hours. In the upper division baccalaureate category, 3 semester hours for field experience in management (2/77).

Recommendation, AZCM

In the vocational certificate category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, 3 in office management, 2 in business communications, and 3 in technical writing, and additional credit in typewriting on the basis of institutional evaluation, for a minimum total of 18 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in office machines, 2 in filing, 3 in clerical office procedures, 3 in record keeping, 3 in office management, 2 in business communications, 3 in personnel supervision, 3 in management electives, and 3 in technical writing, and additional credit in typewriting on the basis of institutional evaluation, for a minimum total of 24 semester hours.

In the upper-division baccalaureate/associate degree category, 3 semester hours for field experience in management, and 3 in management problems, and additional credit in human relations and personnel management on the basis of institutional evaluation, for a minimum total of 6 semester hours (2/77).

NER-BM-001

Boatswain's Mate

BM3
BM2
BM1
BMC
BMCS
BMCM

Exhibit Dates: 6/71–Present.

Occupational Field: 1 (General Seamanship).

Career Pattern

SN: Seaman (E-3). *BM3:* Boatswain's Mate Third Class (E-4). *BM2:* Boatswain's Mate Second Class (E-5). *BM1:* Boatswain's Mate First Class (E-6). *BMC:* Chief Boatswain's Mate (E-7). *BMCS:* Senior Chief Boatswain's Mate (E-8). *BMCM:* Master Chief Boatswain's Mate (E-9).

Description

Summary: Knows shipboard operations, including stevedoring and maintenance; operates and maintains small boats and deck equipment and machinery; is knowledgeable of rigging, ship's security, deck seamanship, and navigation and piloting. *BM3:* Able to perform the duties required for SN; prepares metal and wood surfaces for primers and paints; prepares and applies primers and paints; rigs cargo handling equipment to replenish ship at sea; handles cargo in port; knows signals for directing winch and crane operators; cares for and stows natural fiber, synthetic, and wire rope; makes fenders and eye splices; handles small boats as coxswain; uses navigational aids; understands limitations of small boats in rough weather, low visibility, and capacity; interprets Nautical Rules of the Road regarding crossing and overtaking situations and avoiding collisions; reads compasses; steers by compass; operates and maintains sewing machine for sewing canvas; stands watch as boatswain's-mate-of-the-watch at sea and in port; sends and receives communications by semaphore and flashing light; uses, maintains, repairs, and overhauls blocks, tackles, and shipboard rigging. *BM2:* Able to perform the duties required for BM3; supervises cargo handling; supervises rigging for fueling at sea, using the astern, constant-tension, spanwire, and close-in methods; maintains and overhauls anchors, chains, cables, connecting links, and shackles; determines weather conditions from visual observations and instruments; rigs for towing and being towed; inspects and maintains lifeboats, life rafts, and survival equipment; launches and recovers lifeboats and ship's small craft, maintains hull records, painting records, and inventories of equipment, tools, and paint; obtains replacement equipment, tools and paint; prepares hull reports; supervises 6–40 persons performing work details, deck functions, general upkeep of ship, and maintenance and repair of deck equipment; maintains discipline; serves as master-at-arms and police petty officer. *BM1:* Able to perform the duties required for BM2; supervises repair parties during shipboard emergencies; determines ship's position by bearing, cross-bearing, and running fix; computes effects of wind and current; determines the appropriate rigging method to use; plans, organizes, and assigns work for 6–40 persons and trains and supervises them in all aspects of seamanship, equipment maintenance, and spare parts inventory; keeps records and logs. *BMC:* Able to perform the duties required for BM1; supervises the handling and storing of ammunition and flammables; supervises ship repair crews and the care, maintenance, and overhaul of ground tackle and rigging for mooring; operates and maneuvers service craft and other small craft in amphibious, docking and undocking, and rescue operations; uses tide and current tables and navigational aids; uses the three-minute rule to determine speed-distance-time; has a working knowledge of the inland and international Nautical Rules of the Road. *BMCS:* Able to perform the duties required for BMC; calculates the stability of the ship; coordinates shipboard activities during cargo operations and anchoring and mooring while underway and in port; supervises persons in all rates in a division of 20–30 persons; organizes and schedules training programs; prepares information directives and instructions for obtaining organizational objectives; prepares correspondence; establishes and implements a program for evaluating and assigning personnel; evaluates the division's effectiveness and initiates improvements. *BMCM:* Able to perform the duties required for BMCS; establishes objectives and priorities in area of responsibility; administers departmental long-range programs; coordinates salvage and rescue operations; develops operating budgets and monitors expenditures; plans, organizes, and implements all deck departmental operations aboard ship in accordance with policies and procedures; reviews recommendations for individual advancement and career developments; reviews personnel, equipment, and material requirements and makes appropriate recommendations.

Recommendation, BM3

In the vocational certificate category, 3 semester hours in seamanship, 3 in rigging, and 1 in small crane signaling, for a minimum total of 7 semester hours; *if the duty assignment was boat coxswain,* additional credit in small boat handling on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship; *if the duty assignment was boat coxswain,* additional credit in small boat handling on the basis of institutional evaluation (12/76).

Recommendation, BM2

In the vocational certificate category, 4 semester hours in seamanship, 4 in rigging, 2 in record keeping, 2 in small boat maintenance, 2 in police science (security), and 1 in small crane signaling, for a minimum total of 15 semester hours; *if the duty assignment was boat coxswain,* additional credit in small boat handling on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 4 semester hours in seamanship, 2 in record keeping, and 2 in personnel supervision, for a minimum total of 8 semester hours; *if the duty assignment was boat coxswain,* additional credit in small boat handling on the basis of institutional evaluation (12/76).

Recommendation, BM1

In the vocational certificate category, 5 semester hours in seamanship, 4 in rigging, 2 in record keeping, 2 in small boat maintenance, 2 in police science (security), and 1 in small crane signaling, for a minimum total of 16 semester hours; *if the duty assignment was boat coxswain,* additional credit in small boat handling on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 5 semester hours in seamanship, 3 in personnel supervision, and 2 in record keeping, for a minimum total of 10 semester hours; *if the duty assignment was boat coxswain,* additional credit in small boat handling on the basis of institutional evaluation (12/76).

Recommendation, BMC

In the vocational certificate category, 5 semester hours in seamanship, 4 in rigging, 2 in record keeping, 2 in small boat maintenance, 2 in police science (security), and 1 in small crane signaling, for a minimum total of 16 semester hours; *if the duty assignment was boat coxswain,* additional credit in small boat handling on the basis of institutional evaluation; *if the duty assignment was boat captain of a harbor service craft,* 3 additional semester hours in coastline navigation and piloting, for a minimum total of 19 semester hours. In the lower-division baccalaureate/associate degree category, 5 semester hours in seamanship, 3 in personnel supervision, 3 for field experience in management, and 2 in record keeping, for a minimum total of 13 semester hours; *if the duty assignment was boat coxswain,* additional credit in small boat handling on the basis of institutional evaluation; *if the duty assignment was boat captain of a harbor service craft,* 3 additional semester hours in coastline navigation and piloting, for a minimum total of 16 semester hours (12/76).

Recommendation, BMCS

In the vocational certificate category, 5 semester hours in seamanship, 4 in rigging, 3 in record keeping, 2 in small boat maintenance, 2 in police science (security), and 1 in small crane signaling, for a minimum total of 17 semester hours; *if the duty assignment was boat coxswain,* additional credit in small boat handling on the basis of institutional evaluation; *if the duty assignment was boat captain of a harbor service craft,* 3 additional semester hours in coastline navigation and piloting, for a minimum total of 20 semester hours. In the lower-division baccalaureate/associate degree category, 5 semester hours in seamanship, 3 in personnel supervision, 3 for field experience in management, 3 in record keeping, and 3 in management electives, for a minimum total of 17 semester hours; *if the duty assignment was boat coxswain,* additional credit in small boat handling on the basis of institutional evaluation; *if the duty assignment was boat captain of a harbor service craft,* 3 additional semester hours in coastline navigation and piloting, for a minimum total of 20 semester hours. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, and additional credit in human relations on the basis of institutional evaluation (12/76).

Recommendation, BMCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BMCS. In the upper-division baccalaureate category, 6 semester hours for a practicum in management, 3 in personnel management, 3 in management problems, and additional credit in human relations on the basis of institutional evaluation, for a minimum total of 12 semester hours (12/76).

NER-BT-001

Boiler Technician

BT3
BT2
BT1
BTC
BTCS
BTCM

Exhibit Dates: 1/77–Present. *NOTE:* The Boiler Technician rating has undergone several changes. In 6/71, there were two ratings: Boilermaker (BR) and Boilerman (BT). In 6/72, the title of Boilerman (BT) was changed to Boiler Technician (BT). In 1/77, the Boilermaker (BR) rating was discontinued and the duties were incorporated into the Boiler Technician (BT) rating. This evaluation covers the period from 1/77–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E–3). *BT3:* Boiler Technician, Third Class (E–4). *BT2:* Boiler Technician, Second Class (E–5). *BT1:* Boiler Technician, First Class (E–6). *BTC:* Chief Boiler Technician (E–7). *BTCS:* Senior Chief Boiler Technician (E–8). *BTCM:* Master Chief Boiler Technician (E–9).

Description

Summary: Operates and performs maintenance on marine boilers, pumps, blowers, and heat exchangers. *BT3:* Performs tests on boiler water, fuel and lubricating oils; operates and performs preventive maintenance on boilers and boiler auxiliary equipment; operates distilling plant; tests and calibrates gauges; exercises environmental control procedures to prevent or minimize air pollution and oil spills; completes maintenance data forms. *BT2:* Able to perform the duties required for BT3; recognizes and corrects boiler operating malfunctions; may supervise a fireroom watch; completes maintenance reports; inventories installed equipment and orders repair parts and tools; computes and records daily fuel oil and water receipts and expenditures. *BT1:* Able to perform the duties required for BT2; inspects boilers and advises on replacement and repair actions; installs boiler furnace brickwork and insulation; instructs fireroom personnel in maintenance procedures and equipment operation; reviews maintenance data forms; prepares weekly maintenance schedules. *BTC:* Able to perform the duties required for BT1; supervises maintenance and repair work; prepares reports; conducts on-the-job training; monitors maintenance and handling of logs, records, accounts, and reports; prepares quarterly maintenance schedules. *BTCS:* Able to perform the duties required for BTC; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares directives and instructions for attaining organization objectives; prepares correspondence; organizes and schedules training programs; administers a long-range planned maintenance program. *BTCM:* Able to perform the duties required for BTCS; reviews personnel, equipment, and material requirements, and forecasts future requirements; supervises inspections; develops operating budgets and monitors expenditures.

Recommendation, BT3

In the vocational certificate category, 6 semester hours in mechanical maintenance or engine maintenance, 1 in blueprint reading, 3 in maintenance technology, for a total of 10 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic marine engineering (steam generation), 3 in mechanical maintenance or engine maintenance, 1 in blueprint reading, and 3 in maintenance technology, for a total of 10 semester hours (12/78).

Recommendation, BT2

In the vocational certificate category, 10 semester hours in mechanical maintenance or engine maintenance, 1 in blueprint reading, 6 in maintenance technology, and 1 in record keeping, for a total of 18 semester hours. In the lower-division baccalaureate/associate degree category, 4 semester hours in basic marine engineering (steam generation), 4 in mechanical maintenance or engine maintenance, 1 in blueprint reading, and 4 in maintenance technology, and 1 in record keeping, for a total of 14 semester hours (12/78).

Recommendation, BT1

In the vocational certificate category, the recommendation is the same as that for BT2. In the lower-division baccalaureate/associate degree category, 4 semester hours in basic marine engineering (steam generation), 4 in mechanical maintenance or engine maintenance, 1 in blueprint reading, 4 in maintenance technology, 1 in record keeping, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations, for a total of 21 semester hours (12/78).

Recommendation, BTC

In the vocational certificate category, the recommendation is the same as that for BT2. In the lower-division baccalaureate/associate degree category, 4 semester hours in basic marine engineering (steam generation), 4 in mechanical maintenance or engine maintenance, 1 in blueprint reading, and 4 in maintenance technology, 2 in record keeping, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations, for a total of 24 semester hours (12/78).

Recommendation, BTCS

In the vocational certificate category, the recommendation is the same as that for BT2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, BTCM

In the vocational certificate category, the recommendation is the same as that for BT2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for BTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-BU-001

Builder

BU3
BU2
BU1
BUC
BUCS

Exhibit Dates: 6/72–Present.

Occupational Field: (Construction).

Career Pattern

CN: Constructionman (E–3). *BU3:* Builder Third Class (E–4). *BU2:* Builder Second Class (E–5). *BU1:* Builder First Class (E–6). *BUC:* Chief Builder (E–7). *BUCS:* Senior Chief Builder (E–8). *CUCM:* Master Chief Constructionman (E–9).

Description

Summary: Performs tasks required for construction, maintenance, and repair of wooden, concrete, and masonry structures, concrete pavement, and waterfront and underwater structures. *BU3:* Places reinforcing steel; erects form members and strip forms; installs asphalt and vinyl floor coverings, interior wall coverings, door and window trim, moldings and glass; mixes, places, and finishes concrete; constructs masonry, metal, light wood frame, and timber structures; operates and performs operator maintenance on assigned vehicles and on diesel and gas driven air compressors and portable generators; performs calculations for simple areas and volumes; identifies and interprets grade and site stakes. *BU2:* Able to perform the duties required for BU3; works from construction drawings and specifications; draws simple shop drawings and sketches; prepares standard requisitions; performs shoring of small excavations; performs layout for and directs crews in erecting and stripping concrete form; establishes lines and elevations and layout for concrete masonry unit and brick construction; performs layout plan, and directs crews in the construction of light wood frame and timber structures; erects pre-engineered buildings; directs crews in mixing, placing, finishing, and curing concrete; computes quantities of materials for various concrete mixes, mortar, and stucco; applies roofing materials; operates and maintains paint-spraying and concrete-pumping equipment; operates and performs operator maintenance on stud guns; computes volume of irregular shaped solids. *BU1:* Able to perform the duties required for BU2; prepares work progress reports; implements training for team and crew members; performs shoring of large excavations, buildings and structures; directs installation of all types of interior walls, tile, and suspended acoustic tile systems; directs pile-driving operations and teams in the construction of wood, masonry, and metal structures; directs crews in concrete construction; organizes daily work assignments; prepares equipment, manpower, and material estimates; uses principles of Critical Path Method (CPM) scheduling; performs construction and maintenance inspections; conducts slump tests on concrete and adjusts mixes. Performs duties of carpenter shop supervisor, shop planner, and maintenance scheduler. *BUC:* Able to perform duties for BU1; drafts correspondence; prepares reports; supervises and coordinates all unit tasks; provides technical advice and assistance on plans and specifications and on construction and maintenance techniques; implements maintenance and cost control program; prepares and maintains progress charts. *BUCS:* Able to perform duties for BUC; provides information and advice on operations in own area of responsibility; prepares local directives and instructions for attaining organizational objectives and improving operations; establishes and implements a program to assure maximum utilization of personnel; determines requirements for advanced planning; coordinates equipment assignment; is capable of directing the operation and maintenance of all utilities and the repair, alteration and maintenance of all facilities under the cognizance of a public works department; directs transportation and equipment services to all activities and supervises maintenance of all equipment used for that purpose; establishes maintenance and cost control program; coordinates the preparation and submission of related reports.

Recommendation, BU3

In the vocational certificate category, 3 semester hours in introduction to construction, 3 in construction techniques, and 2 in equipment operation and maintenance, for a total of 8 semester hours. In the lower-division baccalaureate/associate degree category, 1 semester hour in construction materials and 1 in construction techniques (1/77).

Recommendation, BU2

In the vocational certificate category, 6 semester hours in construction techniques, 3 in introduction to construction, 3 in construction materials, 2 in blueprint reading, and 2 in equipment operation and maintenance, for a total of 16 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in construction techniques, 2 in general plans and specifications, and 1 in construction materials, for a total of 5 semester hours (1/77).

Recommendation, BU1

In the vocational certificate category, 9 semester hours in construction techniques, 3 in introduction to construction, 3 in construction materials, 3 in estimating and scheduling, 3 in technical mathematics, 2 in blueprint reading, and 2 in equipment operation and maintenance, for a total of 25 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction techniques, 2 in general plans and specifications, 2 in fundamentals of supervision, 1 in construction materials, 1 in construction estimating, 1 in construction management, and 1 in technical mathematics, for a total of 11 semester hours (1/77).

Recommendation, BUC

In the vocational certificate category, the recommendation is the same as that for BU1. In the lower-division baccalaureate/associate degree category, 3 semester hours in construction techniques, 3 in fundamentals of supervision, 3 for field experience in construction management, 3 in general plans and specifications, 2 in construction management, 2 in records and cost control, 2 in construction materials, 1 in construction estimating, and 1 in technical mathematics, for a total of 20 semester hours (1/77).

Recommendation, BUCS

In the vocational certificate category, the recommendation is the same as that for BU1. In the lower-division baccalaureate/associate degree category, 6 semester hours for field experience in construction management, 3 in construction techniques, 3 in fundamentals of supervision, 3 in general plans and specifications, 3 in records and cost control, 2 in construction management, 2 in construction materials, 2 in technical writing, and 1 in technical mathematics, for a total of 25 semester hours. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and 3 in human relations (1/77).

NER-CE-001

CONSTRUCTION ELECTRICIAN

CE3
CE2
CE1
CEC
CECS

Exhibit Dates: 6/72–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *CE3:* Construction Electrician Third Class (E-4). *CE2:* Construction Electrician Second Class (E-5). *CE1:* Construction Electrician First Class (E-6). *CEC:* Chief Construction Electrician (E-7). *CECS:* Senior Chief Construction Electrician (E-8). *UTCM:* Master Chief Utilitiesman (E-9).

Description

Summary: Plans, supervises, and performs tasks required to install, operate, service, and overhaul electric generating and distribution systems, wire communication systems, and associated equipment. *CE3:* Erects and climbs poles; installs storage and dry cell batteries; installs electrical appliances and equipment; operates vehicles and performs pre-start checks and operator maintenance; performs preventive maintenance and minor repairs on electrical power tools, appliances, and equipment, and on interior wiring systems, power distribution systems, and tactical field telephone systems. *CE2:* Able to perform the duties required for CE3; draws simple shop drawings and sketches; reads and works from construction drawings and specifications; prepares time cards and material requisitions; installs advanced-base type generators and distribution panels, public address equipment, electrical conduits, wiring systems, automatic controls for boilers and for air-conditioning and refrigeration equipment; operates and performs pre-start checks and operator maintenance on auger trunks and bucket trucks; maintains and repairs tactical field telephones, appliances, and equipment, wiring systems, automatic controls for boilers and for air-conditioning and refrigeration systems, distribution systems, and public address systems. *CE1:* Able to perform the duties required for CE2; prepares as-built drawings; prepares work progress and material usage reports; conducts personnel readiness program interviews; maintains standard forms used by the maintenance or utilities division of a public works activity; implements training for team or crew members; directs personnel in the installation and operation of advanced-base type generating equipment, security and air field lighting systems, and fire detection and alarm systems; organizes work assignments; prepares estimates from drawings and specifications; conducts inspections; troubleshoots systems; performs technical maintenance and repair; calibrates automatic controls; computes load requirements; *CEC:* Able to perform the duties required for CE1; prepares letters, instructions, and reports; administers safety program; assigns personnel; supervises and coordinates all tasks assigned to a unit; provides technical advice and assistance; implements cost control program. *CECS:* Able to perform the duties required for CEC; prepares local directives and instructions for attaining organizational objectives; establishes and implements a program to assure maximum utilization of personnel and equipment; directs the operation and maintenance of all facilities and equipment used in the public works department; organizes, schedules, and evaluates training programs.

Recommendation, CE3

In the vocational certificate category, 3 semester hours in basic electricity and 3 in introduction to construction. In the lower-division baccalaureate/associate degree category, 2 semester hours in basic electricity. Advanced standing in a construction electrician apprentice training program on the basis of employer or trade association performance examination (1/77).

Recommendation, CE2

In the vocational certificate category, 3 semester hours in basic electricity, 3 in intermediate electricity, 3 in introduction to construction, and 2 in blueprint reading, for a total of 11 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in blueprint reading, and 1 in electrical construction laboratory, for a total of 6 semester hours. Advanced standing in a construction electrician apprentice training program on the basis of employer or trade association performance examination (1/77).

Recommendation, CE1

In the vocational certificate category, 3 semester hours in basic electricity, 3 in intermediate electricity, 3 in advanced electricity, 3 in introduction to construction, and 2 in blueprint reading, for a total of 14 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in electrical construction laboratory, 2 in electrical problems (troubleshooting), 2 in blueprint reading, 1 in records administration, and 1 in personnel supervision, for a total of 11 semester hours. Advanced standing in a construction electrician apprentice training program on the basis of employer or trade association performance examination (1/77).

Recommendation, CEC

In the vocational certificate category, the recommendation is the same as that for CE1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 2 in electrical construction laboratory, 2 in electrical problems (troubleshooting), 2 in blueprint reading, 2 in shop management, 2 in personnel supervision, 1 in records administration, and 1 in safety management, for a total of 15 semester hours. In the upper-division baccalaureate category, 3 semester hours in human relations. Advanced standing in a construction electrician apprentice training program on the basis of employer or trade association performance examination (1/77).

Recommendation, CECS

In the vocational certificate category, the recommendation is the same as that for CE1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in personnel supervision, 2 in electrical construction laboratory, 2 in electrical problems (troubleshooting), 2 in blueprint reading, 2 in shop management, 2 in records administration, and 1 in safety management, for a total of 17 semester hours. In the upper-division baccalaureate category, 3 semester hours in human relations and 3 for a practicum in management. Advanced standing in a construction electrician apprentice training program on the basis of employer or trade association performance examination (1/77).

NER-CM-001

CONSTRUCTION MECHANIC

CM3
CM2
CM1
CMC
CMCS

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *CM3:* Construction Mechanic Third Class (E-4). *CM2:* Construction Mechanic Second Class (E-5). *CM1:* Construction Mechanic First Class (E-6). *CMC:* Chief Construction Mechanic (E-7). *CMCS:* Senior Chief Construction Mechanic (E-8). *EQCM:* Master Chief Equipmentman (E-9).

Description

Summary: Maintains, repairs, and overhauls automotive, construction, and materials-handling equipment; keeps equipment maintenance records; prepares requisitions and reports; trains subordinates in maintenance procedures and techniques. *CM3:* Works from shop drawings, specifications, and repair and parts manuals; performs preventive maintenance; operates equipment during test procedures; repairs braking systems; tests electrical systems and makes minor repairs. *CM2:* Able to perform the duties required for CM3; prepares time sheets, material distribution records, equipment historical files, and parts and material requisitions; performs engine diagnosis and corrects problems through subassembly repair or replacement; repairs and adjusts steering system; performs minor body repairs and painting; performs gas welding, cutting, and brazing; operates construction, automotive, and material equipment during diagnosis and testing; rebuilds components. *CM1:* Able to perform the duties required for CM2; prepares work progress reports and provides material usage data; conducts personnel readiness capability program interviews; prepares vehicle and equipment inspection reports; implements training for crews and teams; overhauls internal combustion engines; diagnoses engine malfunctions; tests, diagnoses, overhauls, and adjusts diesel engine fuel systems; diagnoses malfunctions and repairs power train units (except torque convertor power shift and automatic transmission); troubleshoots hydraulic, air, and vacuum braking systems; supervises personnel repairing automotive, construction, and materials-handling equipment; performs diagnosis and repair of standard and electronic ignition systems, using test equipment; organizes work assignments for team and crew leaders; prepares equipment, manpower, and material estimates from drawings and specifications; uses principles and techniques of Critical Path Method (CPM) scheduling; identifies fossil fuel and combustion polluting components and applies atmospheric pollution control measures. CMC; Able to perform the duties required for CM1; drafts letters, instructions, and notices; prepares reports; administers accident prevention program; coordinates the assignment of tasks to department and unit personnel; provides technical advice and assistance; implements maintenance and cost control program; organizes and controls the use of equipment and material. *CMCS:* Able to perform the duties required for CMC; organizes, schedules, and evaluates training programs; prepares directives and instructions for attaining organizational objectives; prepares correspondence; establishes and implements a program for interviewing, assigning, and evaluating personnel; coordinates equipment assignment among various units, according to priorities; directs transportation and equipment services; establishes maintenance and cost control program; coordinates and evaluates labor reporting, material and equipment usage, and maintenance data and prepares and submits related reports.

Recommendation, CM3

In the vocational certificate category, 9 semester hours in diesel, truck, or automotive mechanics and 1 in care and use of tools. In the lower-division baccalaureate/associate degree category, 4 semester hours in automotive, diesel, or truck mechanics and 1 in care and use of tools. In an automotive, diesel, or truck mechanics apprentice training program, 1,500 clock hours of experience and 144 contact hours of related instruction (1/77).

Recommendation, CM2

In the vocational certificate category, 15 semester hours in diesel, truck, or automotive mechanics and 1 in care and use of tools. In the lower-division baccalaureate/associate degree category, 6 semester hours in automotive, diesel, or truck mechanics, 3 in shop practices, and 1 in care and use of tools, for a total of 10 semester hours. In an automotive, diesel, or truck mechanic apprentice training program, 3,000 clock hours of experience and 288 contact hours of related instruction (1/77).

Recommendation, CM1

In the vocational certificate category, 18 semester hours in diesel, truck, or automotive mechanics and 1 in care and use of tools. In the lower-division baccalaureate/associate degree category, 9 semester hours in diesel, truck, or automotive mechanics, 3 in shop practices, 2 in personnel supervision, 1 in records administration, and 1 in care and use of tools, for a total of 16 semester hours. In an automotive, diesel, or truck mechanic apprentice training program, 6,000 clock hours of experience and 432 contact hours of related instruction (1/77).

Recommendation, CMC

In the vocational certificate category, the recommendation is the same as that for CM1. In the lower-division baccalaureate/associate degree category, 9 semester hours in diesel, truck, or automotive mechanics, 3 in shop practices, 3 in personnel supervision, 2 in records administration, and 1 in care and use of tools, for a total of 18 semester hours. Journeyman status (defined as 8,000 clock hours of experience and 576 contact hours of related instruction) as an automotive, diesel, or truck mechanic (1/77).

Recommendation, CMCS

In the vocational certificate category, 18 semester hours in diesel, truck, or automotive mechanics, 3 in leadership, and 1 in care and use of tools, for a total of 22 semester hours. In the lower-division baccalaureate/associate degree category, 9 semester hours in diesel, truck, or automotive mechanics, 3 in shop practices, 3 in personnel supervision, 3 in records administration, 3 in introduction to management, and 1 in care and use of tools, for a total of 22 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in human relations. In an automotive, diesel, or truck mechanic apprentice training program, the recommendation is the same as that for CMC (1/77).

NER-CN-001

CONSTRUCTIONMAN

Exhibit Dates: 6/71–Present.

Career Pattern

Constructionman (CN) is a general rate (Naval apprenticeship) for persons at pay grades E-1 (recruit), E-2 (constructionman apprentice), and E-3 (constructionman). At pay grade E-4 (petty officer third class), the person may enter any one of the following ratings: Builder (BU), Construction Electrician (CE), Construction Mechanic (CM), Engineering Aid (EA), Equipment Operator (EO), Steelworker (SW), or Utilitiesman (UT).

Description

Is introduced to all phases of construction work, including construction equipment operation and equipment maintenance, surveying and drafting, site preparation and earthwork, concrete and masonry, steelwork, carpentry and painting, utilities, and tools; understands the mission of the various operating units of the Naval construction force; reads simple sketches used in construction; has basic knowledge of map and compass techniques; knows hand signals for construction equipment operation; uses and maintains common measuring, cutting, line-clearing, manual excavating, and portable power tools; paints with brushes and rollers; knows safety requirements regarding construction equipment and tools, fuels, paints, and electricity; knows first-aid procedures for controlling bleeding, preparing and applying improvised splints, administering artificial respiration, treating heat exhaustion and heat stroke, transporting injured persons; knows symptoms of and immediate treatment for shock; can classify and administer first-aid treatment of burns.

Recommendation

In the vocational certificate category, 3 semester hours in introduction to construction procedures, 1 in map and compass reading and interpretation, and 1 in first aid, for a total of 5 semester hours. In the lower-division baccalaureate/associate degree category, 1 semester hour in map and compass reading and interpretation and 1 in first aid (1/77). NOTE: *Credit for Constructionman (CN) should be granted only after pay grade E-3 has been achieved.*

NER-CT-001

CRYPTOLOGIC TECHNICIAN

CT3
CT2
CT1
CTC
CTCS
CTCM

Exhibit Dates: Pending evaluation.

NER-CU-001

CONSTRUCTIONMAN, MASTER CHIEF

CUCM

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

May progress to CUCM, Master Chief Constructionman (E-9), from BUCS, Senior Chief Builder (E-8), *or* EACS, Senior Chief

Engineering Aid (E-8), *or* SWCS, Senior Chief Steelworker (E-8).

Description

Able to perform the duties required for BUCS (Senior Chief Builder), *or* EACS (Senior Chief Engineering Aid), *or* SWCS (Senior Chief Steelworker); establishes goals and sets priorities in area of responsibility; uses the Critical Path Method; forecasts future personnel equipment, and material requirements and takes necessary action to satisfy them; develops procedures for work improvement and simplification through organizational analysis; prepares correspondence and reports; serves as a construction inspector; manages a contracts inspection branch; implements pollution control program and energy conservation program; assists in the management and operations of a public works department; develops operating budgets and monitors expenditures.

Recommendation

In the vocational certificate category, use the recommendation for BU1 (Builder First Class) in exhibit NER-BU-001 *or* EA1 (Engineering Aid First Class) in exhibit NER-EA-001 *or* SW1 (Steelworker First Class) in exhibit NER-SW-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of administration, 3 in construction contracts and agreements, and 3 in government budgeting procedures, for a total of 9 semester hours; *add* the 25 semester hours for BUCS (Senior Chief Builder) in exhibit NER-BU-001, for a total of 34 semester hours *or* the 25 semester hours for EACS (Senior Chief Engineering Aid) in exhibit NER-EA-001, for a total of 34 semester hours, *or* the 21 semester hours for SWCS (Senior Chief Steelworker) in exhibit NER-SW-001, for a total of 30 semester hours, as appropriate. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, 3 in forecasting, and 3 in management problems, for a total of 9 semester hours; *add* the 6 semester hours for BUCS in exhibit NER-BU-001, for a total of 15 semester hours, *or* the 6 semester hours for EACS in exhibit NER-EA-001, for a total of 15 semester hours, or the 9 semester hours for SWCS in exhibit NER-SW-001, for a total of 18 semester hours, as appropriate (1/77).

NER-DK-001

DISBURSING CLERK

DK3
DK2
DK1
DKC
DKCS
DKCM

Exhibit Dates: 6/71–Present.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *DK3:* Disbursing Clerk, Third Class (E-4). *DK2:* Disbursing Clerk, Second Class (E-5). *DK1:* Disbursing Clerk, First Class (E-6). *DKC:* Chief Disbursing Clerk (E-7). *DKCS:* Senior Chief Disbursing Clerk (E-8). *DKCM:* Master Chief Disbursing Clerk (E-9).

Description

Summary: Maintains military personnel financial records, including payroll, travel allowances, and reimbursements; performs related computations; prepares related reports. *DK3:* Maintains files of manuals and documents; types at 20 wpm; types forms and memoranda; identifies appropriate Navy Codes for charging and crediting disbursements and receipts; applies Navy regulations in computation of pay, deductions, and reimbursements; applies Navy regulations in the preparation of leave records. *DK2:* Able to perform the duties required for DK3; processes more complex and difficult transactions; may train and supervise subordinate personnel. *DK1:* Able to perform the duties required for DK2; organizes the flow of work in the disbursing office; prepares correspondence and messages; prepares budgets; handles cash funds; audits entries on statements and documents; supervises subordinate personnel. *DKC:* Able to perform the duties required for DK1; supervises the operation of a disbursing office; interprets regulations and identifies disbursement procedures; audits reports, records, and vouchers. *DKCS:* Able to perform the duties required for DKC; supervises a large finance establishment; prepares and implements a program for interviewing, evaluating, and assigning personnel to obtain maximum utilization; evaluates local systems of internal control and submits recommendations concerning plans and procedures; prepares directives for the purpose of attaining organization goals and objectives; organizes and schedules training programs and evaluates results. *DKCM:* Able to perform the duties required for DKCS; plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; develops operating budgets and monitors expenditures; directs an inspection and audit of the financial transactions of a disbursing office.

Recommendation, DK3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in office procedures, and 1 in business mathematics, for a total of 3 semester hours (3/79).

Recommendation, DK2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in office procedures, 1 in business mathematics, 1 in office machines, 1 in office management, and 1 in record keeping, for a total of 6 semester hours (3/79).

Recommendation, DK1

In the vocational certificate category, 1 semester hour in typing, 1 in office procedures, 1 in business mathematics, 1 in office machines, 1 in record keeping, and 2 in office management, for a total of 7 semester hours. In the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in office procedures, 1 in business mathematics, 1 in office machines, 1 in record keeping, 2 in office management, 1 in personnel supervision, and 1 in human relations, for a total of 9 semester hours (3/79).

Recommendation, DKC

In the vocational certificate category, 1 semester hour in typing, 1 in office procedures, 1 in business mathematics, 1 in office machines, 1 in record keeping, and 3 in office management, for a total of 8 semester hours. In the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in office procedures, 1 in business mathematics, 1 in office machines, 1 in record keeping, 3 in office management, 2 in human relations, and 3 in personnel supervision, for a total of 13 semester hours In the upper-division baccalaureate category, 1 semester hour for a practicum in management (3/79).

Recommendation, DKCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DKC. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and 3 in personnel management (3/79).

Recommendation, DKCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category the recommendation is the same as that for DKC. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, 3 in management problems, and 3 in personnel management, for a total of 9 semester hours (3/79).

NER-DM-001

ILLUSTRATOR DRAFTSMAN

DM3
DM2
DM1
DMC
DMCS
DMCM

Exhibit Dates: 6/17–Present.

Occupational Field: 17 (Media).

Career Pattern

SN: Seaman (E-3). *DM3:* Illustrator Draftsman, Third Class (E-4). *DM2:* Illustrator Draftsman, Second Class (E-5). *DM1:* Illustrator Draftsman, First Class (E-6). *DMC:* Chief Illustrator Draftsman (E-7). *DMCS:* Senior Chief Illustrator Draftsman (E-8). *DMCM:* Master Chief Illustrator Draftsman (E-9).

Description

Summary: Makes illustrations with pen and ink, water color, and other art media; makes orthographic and other mechanical drawings; operates and maintains graphic arts reproduction and audio-visual presentation equipment. *DM3:* Makes illustrations with pen and ink, water color, pencils, art markers, and other art media for posters, graphs, charts, training aids, books, and publications; mixes colors; designs and executes freehand drawings in realistic and/or cartoon style; makes orthographic and other mechanical drawings; prepares sketches and drawings for audio-visual presentations; mounts and retouches photographs; uses and performs operator maintenance on graphic arts reproduction and audio-visual presentation equipment. *DM2:* Able to perform the duties required for DM3; uses horizontal and vertical copy camera; sets up and operates office duplicators (offset reproduction); constructs basic cartoon figures; draws overlays with acetate inks and cell paints; uses elctronic mixers and pulse generators in sound-slide presentations; makes technical illustrations (isometric, phantom, and exploded views). *DM1:* Able to perform the duties required for DM2; schedules and assigns routine shop work; uses air brush for illustrations and for retouching photographs; uses and maintains silk-screen process equipment; constructs cartoon figures and backgrounds; determines and develops motion sequences for audio-visual presentations. *DMC:* Able to perform the duties required for DM1; organizes a training aids and graphics shop; assures compliance with copy and reproduction regulations; evaluates visual aids and maintains quality control; monitors control of produced classified material. *DMCS:* Able to perform the duties required for DMC; provides technical advice concerning illustration and drafting equipment; prepares directives and instructions for achieving organization objectives and improving operations; establishes and implements a program for interviewing, evaluating, and assigning personnel; organizes, schedules, and evaluates training programs; monitors quality control assurance requirements; prepares cost estimates for audio-visual presentations; determines audio-visual equipment requirements; *DMCM:* Able to perform the duties required for DMCS; plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; develops operating budgets and monitors expenditures; evaluates and makes recommedations for new audio-visual equipment and innovations.

Recommendation, DM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, and 3 in basic techniques of commercial art, for a total of 12 semester hours (3/79).

Recommendation, DM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, and 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in basic photography, and 3 for field experience in graphics, for a total of 21 semester hours (3/79).

Recommendation, DM1

In the vocational certificate category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, and 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in basic photography, 3 for field experience in graphics, 3 in silk-screen printing, 3 in advertising illustration *or* airbrush, and 3 in audio-visual graphics, for a total of 30 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, and 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in basic photography, 3 for field experience in graphics, 3 in silk-screen printing, 3 in advertising illustration *or* airbursh, 3 in audio-visual graphics, and 1 in graphics arts management, for a total of 31 semester hours. In the upper-division baccalaureate category, 2 semester hours in industrial arts education (graphics) (3/79).

Recommendation, DMC

In the vocational certificate category, the recommendation is the same as that for DM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in basic photography, 3 for field experience in graphics, 3 in silk-screen printing, 3 in advertising illustration *or* airbrush, and 3 in audio-visual graphics, 3 in graphic arts management, and 2 in personnel supervision, for a total of 35 semester hours. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics) (3/79).

Recommendation, DMCS

In the vocational certificate category, the recommendation is the same as that for DM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic drawing, 3 in visual design, 3 in technical drafting, 3 in basic techniques of commercial art, 3 in technical illustrating, 3 in basic photography, 3 for field experience in graphics, 3 in silk-screen printing, 3 in advertising illustration *or* airbrush, and 3 in audio-visual graphics, 3 in graphic arts management, and 3 in personnel supervision, for a total of 36 semester hours. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics), 3 field experience in management and 3 in management problems, for a total of 9 semester hours (3/79).

Recommendation, DMCM

In the vocational certificate category, the recommendation is the same as that for DM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for DMCS. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics), 6 for field experience in management, and 3 in management problems, for a total of 12 semester hours (3/79).

NER-DN-001

DENTALMAN

DN

Exhibit Dates: Pending evaluation.

NER-DP-001

DATA PROCESSING TECHNICIAN

DP3
DP2
DP1
DPC
DPCS
DPCM

Exhibit Dates: Pending evaluation.

NER-DS-001

DATA SYSTEMS TECHNICIAN

DS3
DS2
DS1
DSC
DSCS
DSCM

Exhibit Dates: Pending evaluation.

NER-DT-001

DENTAL TECHNICIAN

DT3
DT2
DT1
DTC
DTCS
DTCM

Exhibit Dates: Pending evaluation.

NER-EA-001

ENGINEERING AID

EA3
EA2
EA1
EAC
EACS

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3) *EA3:* Engineering Aid Third Class (E-4). *EA2:* Engineering Aid Second Class (E-5). *EA1:* Engineering Aid First Class (E-6). *EAC:* Chief Engineering Aid (E-7). *EACS:* Senior Chief Engineering Aid (E-8). *CUCM:* Master Chief Constructionman (E-9).

Description

Summary: Plans, supervises, and performs tasks required in construction surveying, drafting, planning and estimating, and quality control. *EA3:* Traces and revises drawings; prepares charts and sketches; places construction stakes and other references; uses standard surveying instruments; performs basic calculations of regular areas and volumes; and performs simple tests on soils and concrete materials. *EA2:* Able to perform the duties required for EA3; draws mechanical layouts of service and building utilities and of distribution and collection systems from existing plans, sketches, or specifications; prepares material requisitions; records survey field notes; inspects the placing of concrete, and tests its compressive and flexural strength; computes irregular areas; performs stadia and hydrographic surveying; tests for soil compaction field density, atterberg limits, and aggregate soundness. *EA1:* Able to perform the duties required for EA2; checks layouts and drawings for accuracy and conformance to standards; prepares progress reports; organizes work assignments; prepares equipment, manpower, and material estimates; performs maintenance and construction inspections; performs the test of Marshall stability; prepares concrete, flexible pavement, and soil stabilization design mixes; as party chief, establishes vertical and horizontal control and directs topographic, boundary, and engineering surveys. *EAC:* Able to perform the duties required for EA1; supervises and coordinates all construction tasks assigned to a unit; provides technical advice and assistance on plans and specifications and on construction and maintenance techniques; implements a program of maintenance and cost control. *EACS:* Able to perform the duties required for EAC; prepares local directives and instructions for attaining organizational objectives and improving operations; establishes and implements a program to assure maximum use of personnel; determines requirements for advance planning; coordinates equipment assignment among projects; is capable of directing the operation and maintenance of all utilities and the repair, alteration and maintenance of all facilities under the cognizance of the public works department; directs transportation and equipment services to all activities and maintains all equipment used for that purpose; establishes a maintenance and cost control program.

Recommendation, EA3

In the vocational certificate category, 3 semester hours in introduction to construction, 2 in drafting, 2 in surveying, and 2 in materials testing, for a total of 9 semester hours. In the lower-division baccalaureate/associate degree category, 1 semester hour in construction technology, 1 in drafting, and 1 in surveying, for a total of 3 semester hours (1/77).

Recommendation, EA2

In the vocational certificate category, 3 semester hours in introduction to construction, 3 in construction methods, 4 in materials testing, 4 in drafting, 3 in surveying, and 3 in technical mathematics, for a total of 20 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in algebra, 2 in drafting, and 1 in construction technology, for a total of 9 semester hours (1/77).

Recommendation, EA1

In the vocational certificate category, 6 semester hours in materials testing, 4 in drafting, 3 in surveying, 3 in introduction to construction, 3 in construction methods, 3 in earthwork computation, and 3 in technical mathematics, for a total of 25 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in surveying, 3 in pavement design, 3 in algebra, 2 in drafting, 2 in personnel supervision, and 1 in construction technology, for a total of 14 semester hours (1/77).

Recommendation, EAC

In the vocational certificate category, the recommendation is the same as that for EA1. In the lower-division baccalaureate/associate degree category, 3 semester hours for field experience in construction management, 3 in surveying, 3 in pavement design, 3 in algebra, 3 in personnel supervision, 3 in construction technology, and 2 in drafting, for a total of 20 semester hours (1/77).

Recommendation, EACS

In the vocational certificate category, the recommendation is the same as that for EA1. In the lower-division baccalaureate/associate degree category, 6 semester hours for field experience in construction management, 3 in surveying, 3 in pavement design, 3 in algebra, 3 in personnel supervision, 3 in construction technology, 2 in drafting, and 2 in technical writing, for a total of 25 semester hours. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and 3 in human relations (1/77).

NER-EM-001

ELECTRICIAN'S MATE

EM3
EM2
EM1
EMC
EMCS

Exhibit Dates: 6/73–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *EM3:* Electrician's Mate, Third Class (E-4). *EM2:* Electrician's Mate, Second Class (E-5). *EM1:* Electrician's Mate, First Class, (E-6). *EMC:* Chief Electrician's Mate (E-7). *EMCS:* Senior Chief Electrician's Mate (E-8). *EMCM:* Master Chief Electrician's Mate (E-9).

Description

Summary: Operates and maintains power and lighting circuits, electrical fixtures, film projectors, motors, generators, controllers, switchboards, voltage and frequency regulators, and other test equipment; tests for short circuits; rebuilds electrical equipment. *EM3:* Operates standard test and metering equipment, including multimeter, voltmeter, ammeter, ohmeter, oscilloscope, stroboscope, voltage tester, wattmeter, and vacuum tube voltmeter; makes standard wire splices; detects and locates grounds, open circuits, and short circuits in lighting and power circuits; solders electrical connections; examines motors and generators for conditions and needed maintenance; operates AC and DC generators; replaces bearings in generators and motors; repairs portable electrical tools; prepares, activates, and services storage batteries; troubleshoots and repairs small boat electrical systems; tests and maintains signal lights, search lights, and beacons; maintains electrical cooking equipment; computes resistance, current, voltage, phase angle, and impedance; prepares diesel generators for operation; reads and interprets schematic diagrams and electrical blueprints. *EM2:* Able to perform the duties required for EM3; operates and uses signal generator; operates instrument transformer; conducts bench tests on motor and generator windings; operates and maintains AC and DC ship propulsion equipment; installs new power and lighting circuits; connects shore power to main distribution board of ship; inspects and maintains battery chargers, cathode protective units, air-conditioning control circuits, air compressor control circuits, and hoist/winch systems; completes planned maintenance reports; inventories installed equipment and spare part support; may supervise up to four Third Class Electrician's Mates. *EM1:* Able to perform the duties required for EM2; conducts bench tests on electric governors; checks logic on solid state electro-hydraulic controllers; inspects ship's service and emergency switchboard equipment when power is connected; estimates extent of casualty damage to equipment; removes, tests, and replaces defective components in automatic degaussing control panels; determines type and value of acceptable substitute components; checks electrical operating logs and maintenance records; prepares weekly maintenance schedules; may supervise up to nine Electrician's Mates. *EMC:* Able to perform the duties required for EM1; tests, inspects, and directs repairs of power and lighting equipment, static magnetic amplifier equipment, voltage and speed regulators, and static inverters; maintains files; directs operation and control of electrical distribution and interior communication system and circuits; plans, organizes, and directs the operation and maintenance of electrical systems; estimates time, materials, and labor required for repair of electrical systems and equipment. *EMCS:* Able to perform the duties required for EMC; advises on preparation for administrative, material, and readiness inspections, the opening and inspection of equipment, and preparation of work requests; provides information and advises on utilization, capabilities, reliability, and operations; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel; administers a long-range planned maintenance program.

Recommendation, EM3

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 3 in electrical wiring, and 3 in electrical motors, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 11 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in electrical wiring, 3 in electrical motors, and 2 in electricity/electronics laboratory, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 11 semester hours (12/78).

Recommendation, EM2

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 3 in electrical wiring, 5 in electrical motors, and 2 in electrical and electronic circuits, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 15 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in electrical wiring, 3 in electrical motors, and 2 in electricity/electronics laboratory, and credit in troubleshooting techniques and in human relations on the basis of institutional evaluation, for a minimum total of 11 semester hours; *if assigned to gas turbine propulsion systems,* credit in gas turbine technology on the basis of institutional evaluation (12/78).

Recommendation, EM1

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 3 in electrical wiring, 7 in electrical motors, 4 in electrical and electronic circuits, and 1 in record keeping, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 20 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in electrical wiring, 3 in electrical motors, 2 in electricity/electronics laboratory, 3 in human relations, 2 in personnel supervision, 2 in maintenance management, and 1 in record keeping, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 19 semester hours; *if assigned to gas turbine propulsion systems,* credit in gas turbine technology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in electrical circuits (12/78).

Recommendation, EMC

In the vocational certificate category, the recommendation is the same as that for EM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in electrical wiring, 3 in electrical motors, 2 in electricity/electronics laboratory, 3 in human relations, 3 in personnel supervision, 3 in maintenance management, 1 in record keeping, and 1 in report writing, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 22 semester hours; *if assigned to gas turbine propulsion systems,* credit in gas turbine technology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in electrical circuits (12/78).

Recommendation, EMCS

In the vocational certificate category the recommendation is the same as that for EM1. In the lower-division baccalaureate/associate degree category the recommendation is the same as that for EMC. In the upper-division baccalaureate category, 3 semester hours in electrical circuits, 3 for field experience in management, and 3 in management problems, for a total of 9 semester hours (12/78).

NER-EM-002

ELECTRICIAN'S MATE, MASTER CHIEF

EMCM

Exhibit Dates: 6/73–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

May progress to EMCM, Master Chief Electrician's Mate (E-9) from EMCS, Senior Chief Electrician's Mate (E-8), or ICCS, Senior Chief Interior Communications Electrician (E-8).

Description

Able to perform the duties required for *either* EMCS (Senior Chief Electrician's Mate) *or* ICCS (Senior Chief Interior Communications Electrician); advises on new developments and new technical information concerning capabilities, limitations, and employment of interior communications and electrical equipment; plans, organizes, and implements activities; plans and initiates actions to satisfy personnel, equipment, and material requirements and forecasts future requirements; schedules major maintenance and repair; develops procedures and supervises practices and techniques for correction of equipment and system malfunctions; supervises inspections and surveys of equipment; evaluates defective and worn electrical equipment items in terms of feasibility of repair or replacement; develops operating budgets and monitors expenditures.

Recommendation, EMCM

In the vocational certificate category, use *either* the 20 semester hours recommended for EM1 in exhibit NER-EM-001, *or* the 25 semester hours recommended for IC1 in exhibit NER-IC-001, as appropriate. In the lower-division baccalaureate/associate degree category, use *either* the 22 semester hours recommended for EMC in exhibit NER-EM-001, *or* the 28 semester hours recommended for ICC in exhibit NER-IC-001, as appropriate. In the upper-division baccalaureate category, 3 semester hours in electrical circuits, 6 for field experience in management, and 3 in management problems, for a total of 12 semester hours (12/78).

NER-EN-001

ENGINEMAN

EN3
EN2
EN1
ENC
ENCS
ENCM

Exhibit Dates: 6/71–Present

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *EN3:* Engineman, Third Class (E-4). *EN2:* Engineman, Second Class (E-5). *EN1:* Engineman, First Class (E-6). *ENC:* Chief Engineman (E-7). *ENCS:* Senior Chief Engineman (E-8). *ENCM:* Master Chief Engineman (E-9).

Description

Summary: Operates, repairs, and performs maintenance on internal-combustion engines, main propulsion machinery, refrigeration, air-conditioning, gas-turbine engines, and shipboard auxiliary equipment; stands watch on auxiliary boilers. *EN3:* Uses firefighting equipment and radiac instruments; performs routine hydraulic maintenance; installs hydraulic seals, packings, and wipers; uses the following test equipment: stroboscopes, micrometers, dial indicators, hydrometers, viscosity gauges, and freon leak detectors; operates electrical charging and regulating systems; uses and files blueprints, microfilm, aperture cards, and ship's drawings for maintaining and servicing equipment and for locating valves, piping systems, and machinery; conducts boiler water and feed water tests; operates steam-operated distilling plants; mechanically removes scale from evaporator tubes; operates and stands watch on refrigeration and air-conditioning systems; operates air compressors; overhauls manually-operated valves; tests electro-hydraulic steering system; inspects, lubricates, and tests galley and laundry equipment; recognizes symptoms in a diesel engine and takes appropriate action to avoid damage to the engine; completes maintenance data forms; exercises environmental control procedures to prevent or minimize air pollution and oil spills. *EN2:* Able to perform the duties required for EN3; tests and recharges refrigeration and air-conditioning systems; overhauls pumps; cleans, inspects, and tests heat exchangers; removes, inspects, repairs, and reinstalls liners, pistons, cylinder heads, wrist pins, piston rings, and bearings; disassembles, cleans, repairs, assembles, and replaces fuel oil injectors; records equipment test results and training data; orders repair parts and tools; uses dial indicators, micrometers, bridge gauges and depth gauges to take clearances on journals, bearings, liners, and pistons. *EN1:* Able to perform the duties required for EN2; inspects, repairs, tests, and maintains auxiliary boilers; determines engine malfunctions and takes appropriate corrective action; checks main engine bearing and thrust clearances; interprets causes and prevention of damage to shafts and thrust bearings; disassembles, cleans, inspects, and repairs mechanical and hydraulic governors, overspeed trips, and load limiting governors; supervises a damage control party; maintains engine room records; reviews completed maintenance data forms; prepares weekly maintenance schedules. *ENC:* Able to perform the duties required for EN1; supervises repair of engineroom equipment and auxiliary equipment, refrigeration, and air-conditioning equipment; inspects propellers and shafts; checks main reduction gears; supervises an engineroom watch; prepares reports; estimates time and material requirements; prepares quarterly maintenance schedules; analyzes results of spectrographic, physical, and chemical oil analysis. *ENCS:* Able to perform the duties required for ENC; monitors environmental pollution control programs; analyzes daily operating records to determine system irregularities; prepares directives and instructions for attaining organization objectives; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs; administers a long-range planned maintenance program. *ENCM:* Able to perform the duties required for ENCS; develops and monitors safety programs; forecasts future requirements; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements; reviews requirements for manuals, prints, and publications; develops operating budgets and monitors expenditures.

Recommendation, EN3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in engine maintenance and repair, 3 in maintenance technology, and 1 in blueprint reading, for a total of 14 semester hours (12/78).

Recommendation, EN2

In the vocational certificate category, 12 semester hours in engine maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, and 1 in record keeping, for a total of 17 semester hours. In the lower-division baccalaureate/associate degree category, 12 semester hours in engine maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, and 1 in record keeping, for a total of 17 semester hours; *if assigned to gas turbine propulsion systems,* credit in gas turbine technology on the basis of institutional evaluation (12/78).

Recommendation, EN1

In the vocational certificate category, 15 semester hours in engine maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, and 2 in record keeping, for a total of 21 semester hours. In the lower-divison baccalaureate/associate degree category, 15 semester hours in engine maintenance and repair, 6 in maintenance technology, 1 in blueprint reading, 2 in record keeping, 2 in maintenance management, 2 in personnel supervision, and 3 in human relations, for a total of 31 semester hours; *if assigned to gas turbine propulsion systems,* credit in gas turbine technology on the basis of institutional evaluation (12/78).

Recommendation, ENC

In the vocational certificate category, the recommendation is the same as that for EN1. In the lower-division baccalaureate/associate degree category, 15 semester hours in engine maintenance and repair, 6 in maintenance technology, 1 in blueprint reading, 2 in record keeping, 3 in maintenance management, 3 in personnel supervision, and 3 in human relations, for a total of 33 semester hours; *if assigned to gas turbine propulsion systems,* credit in gas turbine technology on the basis of institutional evaluation (12/78).

Recommendation, ENCS

In the vocational certificate category, the recommendation is the same as that for EN1. In the lower-divison baccalaureate/associate degree category, the recommendation is the same as that for ENC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, ENCM

In the vocational certificate category, the recommendation is the same as that for EN1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ENC. In the upper-division baccalaureate/associate degree category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-EO-001

Equipment Operator

EO3
EO2
EO1
EOC
EOCS

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *EO3:* Equipment Operator Third Class (E-4). *EO2:* Equipment Operator Second Class (E-5). *EO1:* Equipment Operator First Class (E-6). *EOC:* Chief Equipment Operator (E-7). *EOCS:* Senior Chief Equipment Operator (E-8). *EQCM:* Master Chief Equipmentman (E-9).

Description

Summary: Operates automotive, material-handling, weight-lifting and construction equipment involved in earth moving, road building, quarrying, asphalt batching and paving, concrete paving, and construction work. *EO3:* Able to perform the duties of CN (Constructionman); reads workshop drawings and sketches; reads grade stake markings; computes working loads for lines and wire rope; uses slings, spreaders, cargo nets, and hooks; determines optimum working distances for construction equipment with the exception of scrapers; changes attachments and adapts cable/hydraulic assemblies on tractors (wheeled and crawler) with front and rear mounted and towed attachments; maintains, dismounts, repairs, and mounts tires; operates and performs operator maintenance on portable rotary rock drill, self-propelled compaction equipment, wheel and crawler tractors, wheel and crawler front-end loaders, warehouse and rough-terrain forklifts up to 6,000 pound capacity, passenger-carrying vehicles and trucks through 5-ton, including truck-tractor with semitrailer. *EO2:* Able to perform the duties required for EO3; works from construction drawings and specifications; draws simple shop drawings and sketches; maintains records and logs, including time sheets; prepares requisitions; changes attachments and adapts cable/hydraulic assemblies on multipurpose excavators and cranes (crawler), up to and including 3-cubic-yard for clamshell, dragline, shovel-front, backhoe, pile driver, and hooklock; operates and performs operator maintenance on scrapers, cranes, pile drivers, rock drills, asphalt pavers, soil stabilization mixers, and rough-terrain forklifts, up to and including those with 18,000-pound capacity; maintains asphalt surfaces. *EO1:* Able to perform the duties required for EO2; prepares as-built drawings, work progress reports, and material usage data, implements on-the-job training, directs crews in excavating, paving, grading, hauling, and materials-handling operations; makes work assignments; uses Critical Path Method (CPM) schedules; is a quarry operator and construction inspector; operates and performs operator maintenance on asphalt and concrete batch plants; computes volume of embankment sections; estimates manpower, material, and equipment needs from drawings and specifications; carries out procedures to limit or minimize the adverse effects of oil and fuel spillage and of fuel combustion on air quality. *EOC:* Able to perform the duties required for EO1; drafts letters, reports, and instructions; coordinates and supervises the work performed by unit personnel; provides technical advice on plans and specifications and on equipment operation, construction, and maintenance techniques; implements maintenance and cost control programs; prepares and maintains project progress charts; organizes and controls the site deployment of materials and equipment. *EOCS:* Able to perform the duties required for EOC; provides information and advice on the capabilities, utilization, and operations in own area of responsibility; prepares correspondence; prepares local directives and instructions for attaining organizational objectives and improving operations; establishes and implements a program for assigning and evaluating personnel; coordinates the assignment of equipment among various projects according to priorities; administers construction force tool inventory and inspection program; prepares and maintains visual status boards; directs the repair, alteration, and maintenance of all facilities under the cognizance of a public works department; establishes a maintenance and cost control program; coordinates and evaluates labor reporting, material and equipment usage and maintenance data and prepares related reports; organizes, schedules, and evaluates training programs.

Recommendation, EO3

In the vocational certificate category, 10 semester hours in construction equipment operation, 3 in introduction to construction equipment, and 2 in mechanical maintenance, for a total of 15 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in construction equipment operation and 1 in mechanical maintenance (1/77).

Recommendation, EO2

In the vocational certificate category, 20 semester hours in construction equipment operation, 3 in introduction to construction equipment, and 3 in mechanical maintenance, for a total of 26 semester hours. In the lower-division baccalaureate/associate degree category, 4 semester hours in construction equipment operation and 2 in mechanical maintenance (1/77).

Recommendation, EO1

In the vocational certificate category, 30 semester hours in construction equipment operation, 3 in introduction to construction equipment, and 3 in mechanical maintenance, for a total of 36 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in construction equipment operation, 2 in operations management, 2 in personnel supervision, and 2 in mechanical maintenance, for a total of 12 semester hours (1/77).

Recommendation, EOC

In the vocational certificate category, the recommendation is the same as that for EO1. In the lower-division baccalaureate/associate degree category, 6 semester hours in construction equipment operation, 3 in operations management, 3 in personnel supervision, and 2 in mechanical maintenance, for a total of 14 semester hours (1/77).

Recommendation, EOCS

In the vocational certificate category, the recommendation is the same as that for EO1. In the lower-division baccalaureate/associate degree category, 6 semester hours in construction equipment operation, 3 in operations planning, 3 in operations management, 3 for field experience in management, 3 in personnel supervision, and 2 in mechanical maintenance, for a total of 20 semester hours. In the upper-division baccalaureate category, 3 semester hours in operations/construction management and 3 in human relations (1/77).

NER-EQ-001

Equipmentman, Master Chief

EQCM

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

May progress to EQCM, Master Chief Equipmentman (E-9), from *either* EOCS, Senior Chief Equipment Operator (E-8), *or* CMCS, Senior Chief Construction Mechanic (E-8).

Description

Able to perform the duties required for *either* EOCS (Senior Chief Equipment Operator) *or* CMCS (Senior Chief Construction Mechanic); forecasts future requirements and plans and initiates action to satisfy them; establishes goals and priorities; plans, organizes, implements, and controls work activities in compliance with policy statements and directives; reviews personnel, equipment, and material requirements; is responsible for the administration of a department or company; develops procedures for work improvement and simplification through organizational analysis; manages a contracts inspection branch; implements pollution control and energy conservation programs; develops operating budgets and monitors expenditures; assists in managing a public works department.

Recommendation

In the vocational certificate category, use the recommendation for either EO1 (Equipment Operator First Class) in exhibit NER-EO-001 *or* CMCS (Senior Chief Construction Mechanic) in exhibit NER-CM-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of administration, 3 in construction contracts and agreements, and 3 in government budgeting procedures, for a total of 9 semester hours; *add either* the 20 semester hours for EOCS (Senior Chief Equipment Operator) in exhibit NER-EO-001, for a total of 29 semester hours, *or* the 22 semester hours for CMCS in exhibit NER-CM-001, for a total of 31 semester hours. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 in forecasting, and 3 for a practicum in management, for a total of 9 semester hours; *add either* the 6 semester hours for EOCS in exhibit NER-EO-001, *or* the 6 semester hours for CMCS in exhibit NER-CM-001, as appropriate, for a total of 15 semester hours (1/77).

NER-ET-001

Electronics Technician

ET1
ETC
ETCS
ETCM

Exhibit Dates: 6/73–6/78.

Occupational Field: 8 (Weapons Control).

Career Pattern

May progress from: ETN2, Electronics Technician, Communications, Second Class (E-5); *or* ETR2, Electronics Technician, Radar, Second Class (E-5). *ET1:* Electronics Technician, First Class (E-6). *ETC:*

Chief Electronics Technician (E-7). *ETCS:* Senior Chief Electronics Technician (E-8). *ETCM:* Master Chief Electronics Technician (E-9).

Description

ET1: Able to perform the duties required for ETN2 *or* ETR2; diagnoses, isolates, aligns, adjusts, and calibrates electronic subsystems; monitors maintenance quality control; prepares weekly preventive maintenance schedules; maintains inventory of parts; reviews completed maintenance data forms; trains in the operation of tests on systems and subsystems. *ETC:* Able to perform the duties required for ET1; supervises the repair of electronic systems and subsystems; uses accounting procedures to maintain control of inventories, workflow, and work accomplished; estimates time and support required for repair of equipment; provides technical and supervisory liaison between work centers; implements and administers a maintenance and repair program; prepares quarterly preventive maintenance schedules. *ETCS:* Able to perform the duties required for ETC; evaluates operational test results against engineering design standards; reviews, prepares, and administers the electronic repair organization bill; prepares directives and instructions for attaining organization objectives; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs and evaluates their effectiveness; administers a long-range planned maintenance program. *ETCM:* Able to perform the duties required for ETCS; plans, organizes, controls, directs, and evaluates personnel and equipment utilization; forecasts future requirements and reviews personnel, equipment, and material requirements; coordinates activities with other departments; develops operating budgets and monitors expenditures.

Recommendation, ET1

In the vocational certificate category, use the 19 semester hours for ETN2 (Electronics Technician, Communications, Second Class) in exhibit NER-ETN-001, *or* the 19 semester hours for ETR2 (Electronics Technician, Radar, Second Class) in exhibit NER-ETR-001, and 2 additional semester hours in systems maintenance, for a total of 21 semester hours. In the lower-division baccalaureate/associate degree category, use the 16 semester hours for ETN2 (Electronics Technician, Communications, Second Class) in exhibit NER-ETN-001, *or* the 16 semester hours for ETR2 (Electronics Technician, Radar, Second Class) in exhibit NER-ETR-001, and additional credit as follows: 1 additional semester hour in systems maintenance, 3 semester hours in human relations, 2 in personnel management, and 2 in maintenance management, for a total of 24 semester hours. In the upper-division baccalaureate category 6 semester hours in circuit analysis (12/78).

Recommendation, ETC

In the vocational certificate category, use the 21 semester hours for ET1 and 1 semester hour in record keeping, for a total of 22 semester hours. In the lower-division baccalaureate/associate degree category, use the 24 semester hours for ET1 and additional credit as follows: 1 additional semester hour in personnel supervision and 1 in maintenance management, 1 semester hour in record keeping, and 1 in report writing, for a total of 28 semester hours. In the upper-division baccalaureate category, 6 semester hours in circuit analysis (12/78).

Recommendation, ETCS

In the vocational certificate category, or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ETC. In the upper-division baccalaureate category, 6 semester hours in circuit analysis, 3 for field experience in management, and 3 in management problems, for a total of 12 semester hours (12/78).

Recommendation, ETCM

In the vocational certificate category, or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ETC. In the upper-division baccalaureate category, 6 semester hours in circuit analysis, 6 for field experience in management, and 3 in management problems, for a total of 15 semester hours (12/78).

NER-ET-002

ELECTRONICS TECHNICIAN

ET3
ET2
ET1
ETC
ETCS
ETCM

Exhibit Dates: 7/78–Present. Pending evaluation.

NER-ETN-001

ELECTRONICS TECHNICIAN, COMMUNICATIONS

ETN3
ETN2

Exhibit Dates: 6/73–6/78. (Effective 7/78, the ETN rating was discontinued.)

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *ETN3:* Electronics Technician, Communications, Third Class (E-4). *ETN2:* Electronics Technician, Communications, Second Class (E-5). *ET1:* Electronics Technician, First Class (E-6). *ETC:* Chief Electronics Technician (E-7). *ETCS:* Senior Chief Electronics Technician (E-8). *ETCM:* Master Chief Electronics Technician (E-9).

Description

Summary: Performs maintenance on electronic equipment and components used for communications, cryptography, and navigation; possesses a general working knowledge of electricity and electronics. *ETN3:* Reads and interprets schematic and block diagrams; uses test equipment and handtools; repairs electrical/electronic cables and connectors; localizes malfunctions and repairs or replaces faulty parts or subassemblies; aligns, adjusts, calibrates, and performs preventive maintenance on equipment; inventories tools and portable test equipment; orders parts and tools; inspects, cleans, and lubricates equipment; completes maintenance data forms. *ETN2:* Able to perform the duties required for ETN3; maintains electrical/electronic navigational aids, and communications receiving and transmitting equipment; localizes malfunctions to systems, subsystems, circuits, and parts; inventories installed equipment; completes maintenance reports.

Recommendation, ETN3

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 5 in circuit theory, and 6 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 16 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 5 in circuit theory, 1 in digital electronics, and 2 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 13 semester hours (12/78).

Recommendation, ETN2

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, and 8 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 19 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, 2 in digital electronics, and 3 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 16 semester hours (12/78).

NER-ETR-001

ELECTRONICS TECHNICIAN, RADAR

ETR3
ETR2

Exhibit Dates: 6/73–6/78. (Effective 7/78, the ETR rating was discontinued.)

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *ETR3:* Electronics Technician, Radar, Third Class (E-4). *ETR2:* Electronics Technician, Radar, Second Class (E-5). *ET1:* Electronics Technician, First Class (E-6). *ETC:* Chief Electronics Technician (E-7). *ETCS:* Senior Chief Electronics Technician (E-8). *ETCM:* Master Chief Electronics Technician (E-9).

Description

Summary: Performs maintenance on electronic surface and air tracking and detection equipment, electronic recognition and identification equipment, and aids to navigation; possesses a general working knowledge of electricity and electronics. *ETR3:* Reads and interprets schematics and block diagrams; uses test equipment and handtools; repairs electrical/electronic cables and connectors; localizes malfunctions and repairs or replaces faulty parts or subassemblies; aligns, adjusts, calibrates, and performs preventive maintenance on equipment; inventories tools and portable test equipment; orders parts and tools; inspects, cleans, and lubricates equipment; completes maintenance data forms. *ETR2:* Able to perform the duties required for ETR3; maintains radar transmitting equipment, radar receiving equipment, radar identification equipment, and air navigation equipment; localizes malfunctions to systems, subsystems, circuits, and parts; inventories installed equipment; completes maintenance reports.

Recommendation, ETR3

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 5 in circuit theory, and 6 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 16 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 5 in circuit theory, 1 in digital electronics, and 2 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 13 semester hours (12/78).

Recommendation, ETR2

In the vocational certificate category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, and 8 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 19 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in applied mathematics, 3 in basic electronics, 6 in circuit theory, 2 in digital electronics, and 3 in systems maintenance, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 16 semester hours (12/78).

NER-EW-001

ELECTRONICS WARFARE TECHNICIAN

EW3
EW2
EW1
EWC
EWCS
EWCM

Exhibit Dates: 6/71–Present.

Occupational Field: 10 (Sensor Operations).

Career Pattern

SN: Seaman (E-3). *EW3:* Electronics Warfare Technician, Third Class (E-4). *EW2:* Electronics Warfare Technician, Second Class (E-5). *EW1:* Electronics Warfare Technician, First Class (E-6). *EWC:* Chief Electronics Warfare Technician (E-7). *EWCS:* Senior Chief Electronics Warfare Technician (E-8). *EWCM:* Master Chief Electronics Warfare Technician (E-9).

Description

Summary: Operates, repairs, and performs maintenance on electronic warfare equipment; analyzes and evaluates received signals. *EW3:* Operates electronic signal analyzing equipment; operates electronic direction-finding equipment; maintains radio frequency transmission systems; performs maintenance on electronic warfare equipment; reads and interprets electronic block diagrams. *EW2:* Able to perform the duties required for EW3; tests analog and digital circuits, servomechanisms, and digital logic and interconnecting circuits; operates general-purpose test equipment, including power meters, oscilloscopes, signal generators, counters, pulse generators, and time/frequency domain reflectometers; reads and interprets electrical/electronic schematics and blueprints for maintenance and modifications; inventories installed equipment and spare part support. *EW1:* Able to perform the duties required for EW2; analyzes electronic systems faults and initiates corrective action; analyzes test equipment defects and determines corrective action; trains electronics warfare operators in signal analysis and equipment operation; prepares weekly preventive maintenance schedules. *EWC:* Able to perform the duties required for EW1; tests and evaluates newly installed or repaired electronic warfare equipment; conducts electronic interference surveys and recommends corrective action; supervises an operational training program for electronic warfare personnel; supervises and trains personnel in maintenance procedures; coordinates test equipment calibration requirements and procedures; writes messages and prepares reports; prepares quarterly maintenance schedules. *EWCS:* Able to perform the duties required for EWC; administers a long-range planned maintenance program; coordinates the collection, preparation, and dissemination of technical information pertaining to test, maintenance, and repair of electronic warfare systems; prepares directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs. *EWCM:* Able to perform the duties required for EWCS; plans, organizes, and implements electronic warfare activities; forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, EW3

In the vocational certificate category, 6 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, and 2 in applied mathematics, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 16 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, 2 in applied mathematics, and 1 in digital electronics, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 13 semester hours (12/78).

Recommendation, EW2

In the vocational certificate category, 8 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, and 2 in applied mathematics, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 18 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in systems maintenance, 3 in basic electronics, 6 in circuit theory, 2 in applied mathematics, and 2 in digital electronics, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 16 semester hours (12/78).

Recommendation, EW1

In the vocational certificate category, 10 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, and 2 in applied mathematics, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 20 semester hours. In the lower-division baccalaureate/associate degree category, 4 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, 2 in applied mathematics, 2 in digital electronics, 3 in human relations, 2 in personnel supervision, and 2 in maintenance management, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 23 semester hours. In the upper-division baccalaureate category, 6 semester hours in circuit theory (12/78).

Recommendation, EWC

In the vocational certificate category, 10 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, 2 in applied mathematics, and 1 in record keeping, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 21 semester hours. In the lower-division baccalaureate/associate degree category, 4 semester hours in systems maintenance, 3 in basic electronics, 5 in circuit theory, 2 in applied mathematics, 2 in digital electronics, 3 in human relations, 3 in personnel supervision, 3 in maintenance management, 1 in record keeping, and 1 in report writing, and credit in troubleshooting techniques on the basis of institutional evaluation, for a minimum total of 27 semester hours. In the upper-division baccalaureate category, 6 semester hours in circuit theory (12/78).

Recommendation, EWCS

In the vocational certificate category, or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for EWC. In the upper-division baccalaureate category, 6 semester hours in circuit theory, 3 for field experience in management, and 3 in management problems, for a total of 12 semester hours (12/78).

Recommendation, EWCM

In the vocational certificate category, or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for EWC. In the upper-division baccalaureate category, 6 semester hours in circuit theory, 6 for field experience in management, and 3 in management problems, for a total of 15 semester hours (12/78).

NER-FN-001

FIREMAN

FN

Exhibit Dates: 6/71–Present.

Career Pattern

Fireman is a general rate (Naval apprenticeship) for persons at paygrade E-1 (recruit), E-2 (fireman apprentice), and E-3 (fireman). At paygrade E-4 (petty officer third class), the person may enter any one of the following ratings: Boiler Technician (BT), Electrician's Mate (EM), Engineman (EN), Gas Turbine System Technician (GS), Interior Communications Electrician (IC), Machinist's Mate (MM), Hull Maintenance Technician (HT), Machinery Repairman (MR), Molder (ML), or Patternmaker (PM).

Description

Perform all basic fireman apprenticeship functions in engineering areas aboard ship, involving cleanliness, operation, maintenance, and preservation of main propulsion, auxiliary steam or diesel machinery, steam or diesel generators, various pumps, motors, and associated equipment; identifies functions of refrigeration equipment, anchor windlasses, distilling plants, and compressors; uses and maintains handtools; stands security watches and fire watches; knows the purpose and limitations of first aid and the first aid treatment for electrical shock, simple and compound fractures, heat exhaustion, heat stroke, and burns; must be qualified as a Swimmer Fourth Class, requiring floating for a minimum of five minutes, preparing and using clothing and buoyant objects for staying afloat, and swimming through oil, flames, and debris; knows how to determine the classes of fire and how to extinguish them; knows how to couple, uncouple, and stow fire hoses and how to use carbon dioxide, dry chemical, and water-portable fire extinguishers; knows the function of the typical fire main system, fixed carbon dioxide system, water washdown system, and magazine sprinkling system; knows the difference between flooding and progressive flooding and the dangers involved.

Recommendation

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in marine engineering and credit in first aid and fire science on the basis of institutional evaluation; *if the duty assignment was boat engineer,* 3 semester hours in diesel engine technology; *if qualified as a Swimmer First Class,* 1 semester hour in swimming and additional credit in swimming on the basis of institutional evaluation (12/78). *NOTE: Credit for Fireman (FN) should be granted only after paygrade E-3 has been achieved.*

NER-FT-001

FIRE CONTROL TECHNICIAN

FTCS
FTCM

Exhibit Dates: 6/73–Present.

Occupational Field: 8 (Weapons Control).

Career Pattern

May progress from: FTBC, Chief Fire Control Technician, Ballistic Missile Fire Control (E-7); FTGC, Chief Fire Control Technician, Gun Fire Control (E-7); FTMC, Chief Fire Control Technician, Surface Missile Fire Control (E-7); *or* MTC, Chief Missile Technician (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

FTCS: Able to perform the duties required for FTBC (Chief Fire Control Technician, Ballistic Missile Fire Control), FTGC (Chief Fire Control Technician, Gun Fire Control), FTMC (Chief Fire Control Technician, Surface Missile Fire Control), or MTC (Chief Missile Technician); advises and provides information on reliability, utilization, capabilities, and operations of weapons department; prepares directives and instructions for attaining organization objectives; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs; administers a long-range planned maintenance program. *FTCM:* Able to perform the duties required for FTCS; provides technical information and advice concerning operational employment of weapons equipment; plans, organizes, implements, and controls activities; forecasts future requirements and reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, FTCS

In the vocational certificate category, use the recommendation for FTG2 (Fire Control Technician, Gun Fire Control, Second Class) in exhibit NER-FTG-001, *or* FTB2 (Fire Control Technician, Ballistic Missile Fire Control, Second Class) in exhibit NER-FTB-001, *or* FTM2 (Fire Control Technician, Surface Missile Fire Control, Second Class) in exhibit NER-FTM-001, *or* MT2 (Missile Technician, Second Class) in exhibit NER-MT-001, as appropriate. In the lower-division baccalaureate/associate degree category, use the recommendation for FTGC (Chief Fire Control Technician, Gun Fire Control) in exhibit NER-FTG-001, *or* FTBC (Chief Fire Control Technician, Ballistic Missile Fire Control) in exhibit NER-FTB-001, *or* FTMC (Chief Fire Control Technician, Surface Missile Fire Control) in exhibit NER-FTM-001, *or* MTC (Chief Missile Technician) in exhibit NER-MT-001, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, FTCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for FTCS. In the upper-division baccalaureate category, 6 semester hours for field experience in management, and 3 in management problems (12/78).

NER-FTB-001

FIRE CONTROL TECHNICIAN, BALLISTIC MISSILE FIRE CONTROL

FTB3
FTB2
FTB1
FTBC

Exhibit Dates: 6/73–Present.

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *FTB3:* Fire Control Technician, Ballistic Missile Fire Control, Third Class (E-4). *FTB2:* Fire Control Technician, Ballistic Missile Fire Control, Second Class (E-5). *FTB1:* Fire Control Technician, Ballistic Missile Fire Control, First Class (E-6). *FTBC:* Chief Fire Control Technician, Ballistic Missile Fire Control (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

Summary: Operates, repairs, and performs maintenance on ballistic missile fire control systems, equipment, and associated test equipment. *FTB3:* Adjusts, aligns, and calibrates basic electronic circuits; under supervision, performs troubleshooting, calibration, adjustments, and tests on missile fire control and guidance systems and support subsystems; isolates and replaces faulty parts and components; identifies electrical components and parts from drawings and schematic diagrams; identifies basic digital circuits; orders repair parts; completes maintenance data forms. *FTB2:* Able to perform the duties required for FTB3; isolates and replaces defective circuit components; performs troubleshooting, calibration, adjustments, and tests on missile fire control and guidance systems and support subsystems; operates analog/digital computer; maintains logs and records; completes maintenance reports; inventories installed equipment. *FTB1:* Able to perform the duties required for FTB2; inspects maintenance and repair work of weapon systems and auxiliary equipment; reviews completed maintenance data forms; prepares weekly maintenance schedules; administers nuclear weapon security procedures. *FTBC:* Able to perform the duties required for FTB1; serves as shop supervisor; coordinates and directs maintenance on fire control, guidance, missile, test, and readiness equipment and support subsystems; assures compliance with nuclear weapons safety rules; prepares reports; prepares quarterly maintenance schedules.

Recommendation, FTB3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, and 3 in applied mathematics (12/78).

Recommendation, FTB2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in applied physics, for a total of 14 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading, for a total of 12 semester hours (12/78).

Recommendation, FTB1

In the vocational certificate category, the recommendation is the same as that for FTB2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations, for a total of 19 semester hours (12/78).

Recommendation, FTBC

In the vocational certificate category, the recommendation is the same as that for FTB2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping, for a total of 22 semester hours (12/78).

NER-FTG-001

FIRE CONTROL TECHNICIAN, GUN FIRE CONTROL

FTG3
FTG2
FTG1
FTGC

Exhibit Dates: 6/73–Present.

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *FTG3:* Fire Control Technician, Gun Fire Control, Third Class (E-4). *FTG2:* Fire Control Technician, Gun Fire Control, Second Class (E-5). *FTG1:* Fire Control Technician, Gun Fire Control, First Class (E-6). *FTGC:* Chief Fire Control Technician, Gun Fire Control (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

Summary: Operates, repairs, and performs maintenance on shipboard gun fire control systems including submarine weapon control systems and associated test equipment. *FTG3:* Assists in troubleshooting and repairing electrical and electronic gun fire control systems; performs preventive maintenance on weapons; follows standard checkout procedures to locate and repair system malfunctions; tests, aligns, and adjusts radar-indicating circuits and power supplies; uses test equipment, including voltmeters, oscilloscopes, and signal generators; performs operational tests and operator adjustments on weapon equipment; operates radar equipment, fire control systems, and weapons direction/designation systems in all modes; fabricates, maintains, and installs electrical/electronics cable assemblies; performs electro-mechanical maintenance on mechanical and electrical mechanical assemblies; completes maintenance forms; inventories parts and supplies. *FTG2:* Able to perform the duties required for FTG3; repairs, troubleshoots, and performs preventive maintenance on electrical and electronic gun fire control systems, specialized equipment, and circuits; reads schematics and block diagrams; completes maintenance reports; inventories installed equipment. *FTG1:* Able to perform the duties required for FTG2; analyzes fire control systems failures and directs corrective maintenance action; coordinates shop activities and serves as weapon systems test coordinator; diagnoses non-routine malfunctions and provides the expertise necessary to effect repairs; inspects completed work assignments; tests, analyzes, isolates faults, and adjusts digital computers; prepares weekly maintenance schedules. *FTGC:* Able to perform the duties required for FTG1; plans and implements inspection programs and safety inspections; prepares periodic reports; serves as shop supervisor; prepares quarterly maintenance schedules.

Recommendation, FTG3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, and 3 in applied mathematics (12/78).

Recommendation, FTG2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in applied physics, for a total of 14 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading, for a total of 12 semester hours (12/78).

Recommendation, FTG1

In the vocational certificate category, the recommendation is the same as that for FTG2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations, for a total of 19 semester hours (12/78).

Recommendation, FTGC

In the vocational certificate category, the recommendation is the same as that for FTG2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping, for a total of 22 semester hours (12/78).

NER-FTM-001

FIRE CONTROL TECHNICIAN, SURFACE MISSILE FIRE CONTROL

FTM3
FTM2
FTM1
FTMC

Exhibit Dates: 6/73–Present.

Occupational Field: 8 (Weapons Control).

Career Pattern

SN: Seaman (E-3). *FTM3:* Fire Control Technician, Surface Missile Fire Control, Third Class (E-4). *FTM2:* Fire Control Technician, Surface Missile Fire Control, Second Class (E-5). *FTM1:* Fire Control Technician, Surface Missile Fire Control, First Class (E-6). *FTMC:* Chief Fire Control Technician, Surface Missile Fire Control (E-7). *FTCS:* Senior Chief Fire Control Technician (E-8). *FTCM:* Master Chief Fire Control Technician (E-9).

Description

Summary: Operates, repairs, and performs maintenance on surface missile fire control systems (including weapon direction systems and search radar), telemetry equipment, missiles, and associated support equipment. *FTM3:* Assists in troubleshooting and repairing electrical and electronics surface missile fire control systems; performs preventive maintenance on weapons; follows standard checkout procedures to locate and repair system malfunctions; tests, aligns, and adjusts radar-indicating circuits and power supplies; uses test equipment, including voltmeters, oscilloscopes, and signal generators; performs operational tests and operator adjustments on weapon equipment; operates radar equipment, fire control systems, and weapons direction/designation systems in all modes; fabricates, maintains, and installs electrical/electronics cable assemblies; performs electro-mechanical maintenance on mechanical and electrical mechanical assemblies; completes maintenance forms; inventories parts and supplies. *FTM2:* Able to perform the duties required for FTM3; repairs, troubleshoots, and performs preventive maintenance on electrical and electronics surface missile fire control systems, specialized equipment, and circuits; reads schematics and block diagrams; completes maintenance reports; inventories installed equipment. *FTM1:* Able to perform the duties required for FTM2; analyzes fire control systems failures and directs corrective maintenance action; coordinates shop activities and serves as weapon systems test coordinator; diagnoses non-routine malfunctions and provides the expertise necessary to effect repairs; inspects completed work assignments; tests, analyzes, isolates faults, and adjusts digital computers; prepares weekly maintenance schedules. *FTMC:* Able to perform the duties required for FTM1; plans and implements inspection programs and safety inspections; prepares periodic reports; serves as shop supervisor; prepares quarterly maintenance schedules.

Recommendation, FTM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, and 3 in applied mathematics (12/78).

Recommendation, FTM2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in applied physics, for a total of 14 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading, for a total of 12 semester hours (12/78).

Recommendation, FTM1

In the vocational certificate category, the recommendation is the same as that for FTM2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations, for a total of 19 semester hours (12/78).

Recommendation, FTMC

In the vocational certificate category, the recommendation is the same as that for FTM2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping, for a total of 22 semester hours (12/78).

NER-GM-001

GUNNER'S MATE

GMCS
GMCM

Exhibit Dates: Pending evaluation.

NER-GMG-001

GUNNER'S MATE, GUNS

GMG3
GMG2
GMG1
GMGC

Exhibit Dates: Pending evaluation.

NER-GMM-001

GUNNER'S MATE, MISSILES

GMM3
GMM2
GMM1
GMMC

Exhibit Dates: Pending evaluation.

NER-GMT-001

GUNNER'S MATE TECHNICIAN

GMT3
GMT2
GMT1
GMTC
GMTCS
GMTCM

Exhibit Dates: Pending evaluation.

NER-GS-001

GAS TURBINE SYSTEM TECHNICIAN

GSCS
GSCM

Exhibit Dates: 10/78–Present. Pending evaluation.

NER-GSE-001

GAS TURBINE SYSTEM TECHNICIAN, ELECTRICAL

GS3
GS2
GS1
GSC

Exhibit Dates: 10/78–Present. Pending evaluation.

NER-GSM-001

GAS TURBINE SYSTEM TECHNICIAN, MECHANICAL

GSM3
GSM2
GSM1
GSMC

Exhibit Dates: 10/78–Present. Pending evaluation.

NER-HM-001

HOSPITAL CORPSMAN

HM3
HM2
HM1
HMC
HMCS
HMCM

Exhibit Dates: Pending evaluation.

NER-HN-001

HOSPITALMAN

HN

Exhibit Dates: Pending evaluation.

NER-HT-001

HULL MAINTENANCE TECHNICIAN

HT3
HT2
HT1
HTC
HTCS
HTCM

Exhibit Dates: 6/71–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *HT3:* Hull Maintenance Technician, Third Class (E-4). *HT2:* Hull Maintenance Technician, Second Class (E-5). *HT1:* Hull Maintenance Technician, First Class (E-6). *HTC:* Chief Hull Maintenance Technician (E-7). *HTCS:* Senior Chief Hull Maintenance Technician (E-8). *HTCM:* Master Chief Hull Maintenance Technician (E-9).

Description

Summary: Performs repairs to the ship's hull, plumbing, and piping systems; performs maintenance on firefighting equipment and damage control equipment. *HT3:* Operates, stores, and performs maintenance on firefighting equipment and damage control equipment; inspects and tests installed damage control equipment and systems; performs brazing, electrical arc welding, and oxyacetylene welding and cutting; repairs ship plumbing and piping systems; controls discharging and pumping of waste in restricted water; completes maintenance data forms; orders repair parts and tools. *HT2:* Able to perform the duties required for HT3; performs gas-free testing of voids and compartments to assure safe entry; inspects fire main, sprinklers, and ventilation systems; performs repairs to ship structure using heavy gauge metal; completes maintenance reports; inventories installed equipment. *HT1:* Able to perform the duties required for HT2; organizes and supervises damage control and firefighting parties; prepares training records; reviews completed maintenance data forms; prepares weekly maintenance schedules. *HTC:* Able to perform the duties required for HT1; plans and conducts damage control exercises; maintains shop records and prepares progress reports; supervises training programs; estimates time, personnel, and material requirements; prepares quarterly maintenance schedules; supervises a hull maintenance technician shop. *HTCS:* Able to perform the duties required for HTC; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence; organizes and evaluates training programs; administers a long-range planned maintenance program. *HTCM:* Able to perform the duties required for HTCS; reviews personnel, equipment, and material requirements and forecasts future requirements; plans, organizes, implements, and controls activities; develops operating budgets and monitors expenditures.

Recommendation, HT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in arc welding, 2 in oxyacetylene welding, 4 in fire science, 2 in basic plumbing, and 2 in brazing and soldering, for a total of 12 semester hours (12/78).

Recommendation HT2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in arc welding, 3 in oxyacetylene welding, 6 in fire science, 3 in basic plumbing, 3 in brazing and soldering, and 1 in record keeping, for a total of 19 semester hours (12/78).

Recommendation, HT1

In the vocational certificate category, the recommendation is the same as that for HT2. In the lower-division baccalaureate/associate degree category, 3 semester hours in arc welding, 3 in oxyacetylene welding, 6 in fire science, 3 in basic plumbing, 3 in brazing and soldering, 1 in record keeping, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations, for a total of 26 semester hours (12/78).

Recommendation, HTC

In the vocational certificate category, 3 semester hours in arc welding, 3 in oxyacetylene welding, 6 in fire science, 3 in basic plumbing, 3 in brazing and soldering, and 2 in record keeping, for a total of 20 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in arc welding, 3 in oxyacetylene welding, 6 in fire science, 3 in basic plumbing, 3 in brazing and soldering, 2 in record keeping, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations, for a total of 29 semester hours (12/78).

Recommendation, HTCS

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for HTC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, HTCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for HTC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, and 3 in management problems (12/78).

NER-IC-001

INTERIOR COMMUNICATIONS ELECTRICIAN

IC3
IC2
IC1
ICC
ICCS

Exhibit Dates: 6/73–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *IC3:* Interior Communications Electrician, Third Class (E-4). *IC2:* Interior Communications Electrician, Second Class (E-5). *IC1:* Interior Communications Electricians, First Class (E-6). *ICC:* Chief Interior Communications Electrician (E-7). *ICCS:* Senior Chief Interior Communications Electrician (E-8). *EMCM:* Master Chief Electrician's Mate (E-9).

Description

Summary: Operates and performs maintenance on voice interior communications systems, alarm systems, warning systems ship's control systems, plotting systems, gyrocompass systems, and entertainment systems. *IC3:* Operates standard test and metering equipment, including multimeter, voltmeter, ammeter, ohmmeter, oscilloscope, signal generator, frequency meter, vacuum tube voltmeter, and megger; makes standard wire splices; tests and operates alarm and indicating systems; troubleshoots and repairs synchro systems; inspects, tests, maintains, charges, and replaces batteries, repairs components of general announcing systems and sound-powered telephone systems; cleans and inspects plotters and dead-reckoning equipment; tests external circuits of interior communications equipment for continuity, short circuits, and grounds, and measures electrical quantities; reads and interprets schematic diagrams and blueprints of basic electrical, electronic, and logic circuits. *IC2:* Able to perform the duties required for IC3; troubleshoots and repairs ship's metering, alarm, and indicating systems; troubleshoots and repairs synchro-amplifiers, servo systems, and tape recorders/producers; maintains microfiche readers/printers; isolates and repairs malfunctions in common electronic circuits; inspects and cleans commutators and adjusts brushes on motors and generators; inventories installed equipment and spare part support; ma, supervise up to three third class Interior Communications Electricians. *IC1:* Able to perform the duties required for IC2; isolates troubles to faulty equipment in dead-reckoning systems, including gyrocompass;

tests, replaces, and adjusts components on the interior communications and local switchboards; determines type and value of acceptable substitute components; checks operating logs and maintenance records; prepares weekly maintenance schedules; may supervise up to five Interior Communications Electricians. *ICC:* Able to perform the duties required for IC1; analyzes and evaluates electrical and electronic tests; adjusts, calibrates, and repairs interior communications equipment; plans, organizes, and directs work of personnel operating and maintaining interior communications systems; estimates time, materials, and labor required for repair of equipment. *ICCS:* Able to perform the duties required for ICC; advises on the opening and inspection of equipment, and preparation of work request; provides information and advises on utilization, capabilities, reliability, and operations; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel; administers a long-range planned maintenance program.

Recommendation, IC3

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 4 in troubleshooting techniques, 5 in electrical/electronic circuits, 4 in electrical/mechanical systems, and 2 in applied mathematics, for a total of 20 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in electrical/electronics laboratory, 2 in troubleshooting techniques, 3 in electrical/electronic circuits, 3 in electrical/mechanical systems, and 2 in applied mathematics, for a total of 15 semester hours (12/78).

Recommendation, IC2

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 6 in troubleshooting techniques, 6 in electrical/electronic circuits, 4 in electrical/mechanical systems, and 2 in applied mathematics, for a total of 23 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in electrical/electronics laboratory, 2 in troubleshooting techniques, 3 in electrical/electronic circuits, 3 in electrical/mechanical systems, 2 in applied mathematics, and 1 in digital electronics, for a total of 16 semester hours; *if assigned to gas turbine propulsion systems,* credit in gas turbine techology on the basis of institutional evaluation (12/78).

Recommendation, IC1

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 8 in troubleshooting techniques, 6 in electrical/electronic circuits, 4 in electrical/mechanical systems, and 2 in applied mathematics for a total of 25 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in electrical/electronics laboratory, 2 in troubleshooting techniques, 3 in electrical/electronic circuits, 3 in electrical/mechanical systems, 2 in applied mathematics, 2 in digital electronics, 3 in human relations, 2 in maintenance management, and 2 in personnel supervision, for a total of 24 semester hours; *if assigned to gas turbine propulsion systems,* credit in gas turbine technology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in electrical circuits (12/78).

Recommendation, ICC

In the vocational certificate category, 5 semester hours in basic electricity/electronics, 8 in troubleshooting techniques, 6 in electrical/electronic circuits, 4 in electrical/mechanical systems, 2 in applied mathematics, and 1 in record keeping, for a total of 26 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electronics, 2 in electrical/electronics laboratory, 2 in troubleshooting techniques, 3 in electrical/electronic circuits, 3 in electrical/mechanical systems, 2 in applied mathematics, 2 in digital electronics, 3 in human relations, 3 in maintenance management, 3 in personnel supervision, 1 in record keeping, and 1 in report writing, for a total of 28 semester hours; *if assigned to gas turbine propulsion systems,* credit in gas turbine technology on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in electrical circuits (12/78).

Recommendation, ICCS

In the vocational certificate category, or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for ICC. In the upper-division baccalaureate category, 3 semester hours in electrical circuits, 3 for field experience in management, and 3 in management problems, for a total of 9 semester hours (12/78).

NER-IM-001

INSTRUMENTMAN

IM3
IM2
IM1
IMC
IMCS

Exhibit Dates: 6/71–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

SN: Seaman (E-3). *IM3:* Instrumentman, Third Class (E-4). *IM2:* Instrumentman, Second Class (E-5). *IM1:* Instrumentman, First Class (E-6). *IMC:* Chief Instrumentman (E-7). *IMCS:* Senior Chief Instrumentman (E-8). *PICM:* Master Chief Opticalman (E-9).

Description

Summary: Performs maintenance on mechanical instruments, office machines, and navy timepieces, and implements mechanical instrument repair and calibration shop procedures. *IM3:* Uses schematic diagrams; prepares sketches of mechanical parts, using applicable symbols, and dimensional and material specifications; uses twist drills and thread taps; operates bench grinders, lathe (jeweler's lathe) and drill press; manufacture and maintain instrument repair and calibration tools; cleans and refinishes painted surfaces of instruments; solders metals using soldering iron, soldering gun, and torch; brazes brass and steel; tempers, hardens, and anneals metals; determines nominal value of measuring instruments and related test equipment; calibrates and adjusts pressure instruments and vacuum-measuring instruments, centrifugal tachometers, bimetallic thermometers and torque measuring tools; operates the following equipment: constant temperature bath (with resistance thermometer indicators), manometers, vacuum chamber and pump, nitrogen booster pump assembly, hydraulic and pneumatic pressure gage calibration panel, tachometer calibrator, torque wrench testers, portable pneumatic calibrators, pressure test chambers, *portable pneumatic amplifiers,* DC volt/ohm meters, millivolt potentiometer, and pneumatic, bifluid, water, and oil dead weight testers; completes correct forms, labels, and tags during calibration; disassembles, cleans, lubricates, repairs and performs casualty analysis on: bourdon tube pressure gages, centrifugal tachometers, bellows gages, torque indicating devices, diaphragm pressure gages, liquid level indicators, dial indicators, and pressure regulators; carries out hand, machine, and ultrasonic cleaning procedures; exercises precautions and safety procedures to prevent contamination of oxygen and nitrogen test instruments; operates demagnetizers; uses feeler gages, micrometers, vernier calipers, and dial indicators; disassembles, cleans, reassembles, adjusts, and repairs addressographs, paper shredders and cutters, manual typewriters, and fluid and stencil process duplicators; replaces and aligns typeface; installs various types of tubing, pipe, and fittings; removes burrs from machine threads using thread taps and dies, thread combs, gravers, stones, and files; removes broken screws and studs, using drill and screw extractor or thread tap; completes maintenance data forms, maintenance requirement cards, and office machine inspection sheets. *IM2:* Able to perform the duties required for IM3; calibrates and adjusts positive displacement fluid flowmeter, depth and caisson gages, filled system and liquid-in-glass thermometers, and chronometric tachometers; operates resistance thermometer bridge and DC resistance box; performs preventive maintenance on the following equipment: pressure gage calibration panels, torque wrench calibrators, dead weight testers, tachometer calibrators, nitrogen pump assemblies, constant temperature baths, and resistance thermometers; performs contamination flushing and testing of bleeder and dead-ended type of oxygen or nitrogen bourdon tubes gages; disassembles, cleans, lubricates, and reassembles chronometric tachometers; repairs and performs casualty analysis of liquid level indicators, temperature instruments, and chronometric tachometers; disassembles, cleans, reassembles, adjusts, and repairs electric typewriters; operates and maintains jeweler's lathe and attachments; completes maintenance reports; prepares and maintains shop work records; inventories installed equipment; orders repair parts and special tools. *IM1:* Able to perform the duties required for IM2; calibrates resistance thermometer indicators and pressure working standards with the dead weight reference standards and applies appropriate correction factors; determines accuracy limitations of calibration standards to determine which standard is best suited to a particular calibration; calibrates and adjusts liquid level indicators, absolute pressure gages, hydraulic, remote reading, and liquid level systems, thermocouple and resistance thermometer systems; supervises repair of watches and clocks; disassembles, cleans, reassembles, adjusts and repairs adding machines, cash registers, and liquid, thermo, and coated paper reproduction equipment; instructs personnel in basic physics and mathematics pertaining to metrology, and on the characteristics, pressure limitations, and use of mechanical connectors, tubing, pipe, and hose fitting; applies quality control procedures; reviews completed forms; ensures that navy calibration procedures are current; prepares preventive maintenance schedule; plans and supervises repair work. *IMC:* Able to perform the duties required for IM1; directs operation and repair of test equipment in instrument repair work center; supervises operation and use of office machine test equipment and special tools; manages the maintenance, calibration, and repair of jeweled instruments, and the maintenance, repair, procurement, and utilization of all parts and machines in stock; informs superiors about new developments and procedures pertaining to precision measuring instruments, and design, use, and support of office equipment; instructs personnel in techniques and procedures for repair of temperature, fluid, and flow measuring instruments, watches, clocks, and office machines; prepares quarterly maintenance schedules; supervises maintenance and repair of office machines and equipment, navy timepieces, and optical instruments and equipment; supervises maintenance, repair, and calibration of measuring instruments and test equipment; disassembles, cleans, reassembles, adjusts, and repairs rotary and electronic calculators, dual spectrum and electrostatic reproduction equipment. *IMCS:* Able to perform the duties required for IMC; prepares directives and instructions for attaining organizational objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; administers repair and maintenance records; organizes and schedules training programs, evaluates their effectiveness, and initiates improvements; coordinates quality assurance audits; coordinates and prepares work estimates; directs quality assurance program; administers a long-range maintenance program.

Recommendation, IM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tool operation, 6 in basic instrumentation, and 3 in office machine repair, for a minimum total of 11 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics, for a total of 14 semester hours (12/78).

Recommendation, IM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tool operation, 6 in basic instrumentation, 1 in test and measurement standards (instrumentation), 3 in office machine repair, and 1 in shop supervision, for a minimum total of 13 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics, for a total of 16 semester hours (12/78).

Recommendation, IM1

In the vocational certificate category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tool operation, 6 in basic instrumentation, 1 in test and measurement standards (instrumentation), 3 in office machine repair, and 2 in shop supervision, for a minimum total of 14 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics, for a total of 17 semester hours. In the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tools, 6 in basic instrumentation, 1 in test and measurement standards (instrumentation), 3 in office machine repair, 2 in shop supervision, 1 in records administration, and 2 in personnel supervision, for a minimum total of 17 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics for a total of 20 semester hours (12/78).

Recommendation, IMC

In the vocational certificate category, the recommendation is the same as that for IM1. In the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tools, 6 in basic instrumentation, 1 in test and measurement standards (instrumentation), 3 in office machine repair, 2 in shop supervision, 3 in personnel supervision, and 2 in records administration, for a minimum total of 19 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics, for a total of 22 semester hours (12/78).

Recommendation, IMCS

In the vocational certificate category, the recommendation is the same as that for IM1. In the lower-division baccalaureate/associate degree category, 1 semester hour in mechanical blueprint reading, 1 in basic machine tools, 6 in basic instrumentation, 1 in test and measurement standards (instrumentation), 3 in office machine repair, 2 in shop supervision, 3 in personnel supervision, 2 in records administration, and 3 in human relations, for a minimum total of 22 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics, for a total of 25 semester hours. In the upper division baccalaureate category, 3 semester hours for field experience in management (12/78).

NER-IS-001

INTELLIGENCE SPECIALIST

IS3
IS2
IS1
ISC
ISCS
ISCM

Exhibit Dates: Pending evaluation.

NER-JO-001

JOURNALIST

JO3
JO2
JO1
JOC
JOCS
JOCM

Exhibit Dates: 6/72—Present.

Occupational Field: 17 (Media).

Career Pattern

SN: Seaman (E-3). *JO3:* Journalist, Third Class (E-4). *JO2:* Journalist, Second Class (E-5). *JO1:* Journalist, Third Class (E-6). *JOC:* Chief Journalist (E-7). *JOCS:* Senior Chief Journalist (E-8). *JOCM:* Master Chief Journalist (E-9).

Description

Summary: Supervises or participates in the administration of public affairs activities. *JO3:* Researches and writes news releases and feature articles; covers news events; processes news photographs and writes captions; creates and produces material for broadcast use; serves on the staff of American Forces Radio/TV (AFRT) stations; prepares official correspondence and directives; assists in speech writing and presentations on Naval topics; prepares and lays out Navy publications, including newspapers and information brochures; prepares art work and layouts for various publications; operates audio and videotape equipment; drafts correspondence; edits news copy and news releases; writes scripts and prepares visual material for radio and television programs; announces radio programs and conducts interviews; takes and processes news photographs. *JO2:* Able to perform the duties required for JO3; organizes, edits, and administers a ship or shore station newspaper; researches and prepares feature articles for Naval and commercial use; writes feature material for radio and television; administers a shipboard AFRT station. *JO1:* Able to perform the duties required for JO2; conducts and arranges news conferences; prepares slide presentations; develops public affairs plans for either a ship or small shore station; prepares and conducts audience surveys; trains and supervises personnel. *JOC:* Able to perform the duties required for JO1; manages a public affairs office; plans, establishes, and coordinates special events; prepares cost estimates for command public affairs programs; coordinates news coverage of a major event; administers a shore AFRT station. *JOCS:* Able to perform the duties required for JOC; plans administrative public affairs procedures; formulates media liaison activities; evaluates performance and utilization of personnel; organizes, schedules, and evaluates training programs. *JOCM:* Able to perform the duties required for JOCS; prepares a community relations study; analyzes effectiveness of public affairs activities at the command level; reviews personnel, equipment, and material requirements; develops and monitors operating budgets.

Recommendation, JO3

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, and 3 in writing for mass media, for a minimum total of 9 semester hours; *if NEC was JO-3221, Radio-TV Specialist,* an additional 3 semester hours in audio-visual technology, 3 in announcing, and 3 in studio techniques; *if NEC was JO-8148, Photojournalist,* an additional 3 semester hours in photography and 3 in layout (3/79).

Recommendation, JO2

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, 3 in writing for mass media, 3 in technical writing, 3 in interviewing techniques, and 3 for field experience in public affairs, for a minimum total of 18 semester hours; *if NEC was JO-3221, Radio-TV Specialist,* an additional 3 semester hours in audio-visual technology, 3 in announcing, 3 in studio techniques, and 6 in radio/television production techniques; *if NEC was JO-8148, Photojournalist,* an additional 6 semester hours in photography and 3 in layout (3/79).

Recommendation, JO1

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, 3 in writing for mass media, 3 in audience analysis, 3 in technical writing, 3 in interviewing techniques, 3 for field experience in public affairs, 1 in speechwriting, 2 in human relations, and 2 in personnel supervision, for a minimum total of 26 semester hours; *if NEC was JO-3221, Radio-TV Specialist,* an additional 3 semester hours in audio-visual technology, 3 in announcing, 3 in studio techniques, 6 in radio/television production techniques, and 3 in broadcasting news and public affairs; *if NEC was JO-8148, Photojournalist,* an additional 6 semester hours in photography and 3 in layout (3/79).

Recommendation, JOC

In the lower-division baccalaureate/associate degree category, 3 semester hours in news editing, 3 in news reporting, 3 in writing for mass media, 3 in audience analysis, 3 in technical writing, 3 in interviewing techniques, 3 for field experience in public affairs, 2 in speech writing, 3 in human relations, 3 in personnel supervision, and 3 in office management, for a minimum total of 32 semester hours; *if NEC was JO-3221, Radio-TV Specialist,* an additional 3 semester hours in audio-visual technology, 3 in announcing, 3 in studio techinques, 6 in radio/television production techniques, 3 in broadcasting news and public affairs, 3 in station management, and 3 for field experience in broadcast journalism; *if NEC was JO-8148, Photojournalist,* an additional 3 semester hours in photography, 3 in layout, and 3 for field experience in journalism JOCS

Recommendation, JOCS

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for JOC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (3/79).

Recommendation, JOCM

In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for JOC. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (3/79).

NER-LI-001

LITHOGRAPHER

LI3
LI2
LI1
LIC
LICS
LICM

Exhibit Dates: 6/72–Present.

Occupational Field: 17 (Media).

Career Pattern

SN: Seaman (E-3). *LI3:* Lithographer, Third Class (E-4). *LI2:* Lithographer, Second Class (E-5). *LI1:* Lithographer, First Class (E-6). *LIC:* Chief Lithographer (E-7). *LICS:* Senior Chief Lithographer (E-8). *LICM:* Master Chief Lithographer (E-9).

Description

Summary: Supervises or performs lithographic, letterpress, platemaking, photography, and bindery activities. *LI3:* Reproduces printed matter by either the letterpress or lithographic method; operates graphic equipment; duties include negative stripping, line camera operation, platemaking, preparation of hot and cold composition, and preparation of copy and layouts; has knowledge of darkroom procedures and bindery operations; performs these skills at a journeyman level of proficiency. *LI2:* Able to perform the duties required for LI3; estimates time and materials required to complete a printing job order; troubleshoots equipment; times and aligns printing presses up to 17 by 22 inches. *LI1:* Able to perform the duties required for LI2; prepares printing specifications; requisitions and inventories supplies and equipment; interprets policies of the Navy Publication and Printing Service; performs makeready operations and operates offset presses 17 by 22 inches and larger; times and aligns larger graphic equipment; prepares weekly maintenance schedules. *LIC:* Able to perform the duties required for LI1; plans, organizes, and supervises the operation of a lithographic and letterpress shop; performs process photography operations; prepares quarterly maintenance schedules. *LICS:* Able to perform the duties required for LIC; operates halftone cameras; prepares administrative and operational reports; requests and justifies additional graphics equipment; prepares correspondence; prepares directives and instructions for attaining organization objectives; organizes and schedules training programs; administers a long-range planned maintenance program. *LICM:* Able to perform the duties required for LICS; establishes goals and priorities; reviews personnel, equipment, and material requirements and forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, LI3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in offset press operation, 3 in platemaking, 2 in ink, 3 in process camera, 3 in layout, and 3 in copy preparation, for a total of 17 semester hours (3/79).

Recommendation, LI2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in offset press operation, 4 in platemaking, 2 in ink, 4 in process camera, 4 in layout, 4 in copy preparation, and 3 for field experience in graphic arts, for a total of 25 semester hours (3/79).

Recommendation, LI1

In the vocational certificate category, the recommendation is the same as that for LI2. In the lower-division baccalaureate/associate degree category, 4 semester hours in offset press operation, 4 in platemaking, 2 in ink, 4 in process camera, 4 in layout, 4 in copy preparation, 3 for field experience in graphic arts, 2 in human relations, and 3 in print shop management, for a total of 30 semester hours. In the upper-division baccalaureate category, 2 semester hours in industrial arts education (graphics) (3/79).

Recommendation, LIC

In the vocational certificate category, the recommendation is the same as that for LI2. In the lower-division baccalaureate/associate degree category, 4 semester hours in offset press operation, 4 in platemaking, 2 in ink, 4 in process camera, 4 in layout, 4 in copy preparation, 3 for field experience in graphic arts, 3 in human relations, 4 in print shop management, and 3 in personnel supervision, for a total of 35 semester hours. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics) (3/79).

Recommendation, LICS

In the vocational certificate category, the recommendation is the same as that for LI2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for LIC. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics), 3 for field experience in management, and 3 in management problems, for a total of 9 semester hours (3/79).

Recommendation, LICM

In the vocational certificate category, the recommendation is the same as that for LI2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for LIC. In the upper-division baccalaureate category, 3 semester hours in industrial arts education (graphics), 6 for field experience in management, and 3 in management problems, for a total of 12 semester hours (3/79).

NER-LN-001

LEGALMAN

LN2
LN1
LNC
LNCS
LNCM

Exhibit Dates: 6/72–Present.

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *YN3:* Yeoman Third Class (E-4). *LN2:* Legalman Second Class (E-5). *LN1:* Legalman First Class (E-6). *LNC:* Chief Legalman (E-7). *LNCS:* Senior Chief Legalman (E-8). *LNCM:* Master Chief Legalman (E-9).

Description

Summary: Performs paralegal duties under the supervision of a judge advocate (legal officer). *LN2:* Records with stenomask (closed microphone recording device) or stenotype machine; types at 40 words per minute; performs primarily military-related paralegal duties such as completing legal forms, answering inquiries on basic legal services, and assisting personnel in obtaining legal services; schedules and prepares courtroom for trials and legal proceedings; performs general legal office duties under supervision. *LN1:* Able to perform the duties required for LN2; types at 50 words per minute; performs paralegal duties pertaining to both civil and military legal matters, including interviewing witnesses, providing security for evidence, providing basic legal information, and counseling on personal legal matters; cooperates with civil authorities in legal matters concerning Navy personnel. *LNC:* Able to perform the duties required for LN1; supervises the administrative procedures of a legal office; interviews and counsels detained personnel and prisoners. *LNCS:* Able to perform the duties required for LNC; performs basic legal research using standard legal references such as state and federal codes, reporters, citators, legal encyclopedias, and legal digests; organizes and supervises personnel functions in a judge advocate's office; reviews reports and records for accuracy and legal adequacy. *LNCM:* Able to perform the duties for LNCS; develops operating budgets and monitors expenditures; prepares plans for manpower, supplies, and equipment utilization in a legal office; establishes goals and objectives within own area of responsibility; plans, organizes, and controls activities in compliance with policy statements, operational orders, and directives.

Recommendation, LN2

In the vocational certificate category, 1 semester hour in office procedures, 2 in typing, 3 in military legal practices and procedures, and 6 in machine shorthand, for a total of 12 semester hours. In the lower-division baccalaureate/associate degree category, 1 semester hour in office procedures, 2 in typing, 3 in social studies, and 3 in military legal practices and procedures, for a total of 9 semester hours (12/76).

Recommendation, LN1

In the vocational certificate category, 3 semester hours in typing, 3 in office procedures, 3 in military legal practices and procedures, and 6 in machine shorthand, for a total of 15 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication (written), 3 in typing, 3 in office procedures, 3 in military legal practices and procedures, and 6 in social studies, for a total of 17 semester hours (12/76).

Recommendation, LNC

In the vocational certificate category, the recommendation is the same as that for LN1. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication (written), 3 in typing, 3 in office procedures, 3 in military legal practices and procedures, 3 in office management, and 6 in social studies, and additional credit for field experience in management on the basis of institutional evaluation, for a minimum total of 20 semester hours (12/76).

Recommendation, LNCS

In the vocational certificate category, the recommendation is the same as that for LN1. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication (written), 2 in personnel supervision, 3 in typing, 3 in office procedures, 3 in military legal practices and procedures, 3 in office management, 3 for management electives, and 6 in social studies, and additional credit for field experience in management on the basis of institutional evaluation, for a minimum total of 25 semester hours. In the upper-division baccalaureate category, 2 semester hours in judicial process and administration, 2 in legal bibliography, and additional credit in human relations on the basis of institutional evaluation, for a minimum total of 4 semester hours (12/76).

Recommendation, LNCM

In the vocational certificate category, the recommendation is the same as that for LN1. In the lower-division baccalaureate/associate degree category, 2 semester hours in communication (written), 2 in personnel supervision, 3 in typing, 3 in office procedures, 3 in military legal practices and procedures, 3 in office management, 6 in management electives, and 6 in social studies, and credit for field experience in management on the basis of institutional evaluation, for a minimum total of 28 semester hours. In the upper-division baccalaureate category, 2 semester hours in judicial process and administration, 2 in legal bibliography, and 3 in management problems, and additional credit in human relations, in personnel management, and for a practicum in management, on the basis of institutional evaluation, for a minimum total of 7 semester hours (12/76).

NER-MA-001

MASTER-AT-ARMS

MA1
MAC
MACS
MACM

Exhibit Dates: 4/73–Present.

Occupational Field: 19 (Master-At-Arms).

Career Pattern

May have progressed from Petty Officer Second Class (E-5) *of any rating. MA1:* Master-At-Arms, First Class (E-6). *MAC:* Chief Master-At-Arms (E-7). *MACS:* Senior Chief Master-At-Arms (E-8). *MACM:* Master Chief Master-At-Arms (E-9).

Description

MA1, MAC, MACS: Conducts and supervises investigations, interrogations, and apprehensions; duties include crime prevention, preservation of crime scene evidence, enforcement of appropriate criminal and traffic laws, shore patrol, physical security responsibilities, crowd control, custodial operations, and other public safety duties; prepares records and reports. *MACM:* Able to perform the duties required for MA1, MAC, and MACS; plans, implements, and controls activities; establishes goals and priorities; reviews personnel, equipment, and material requirements and forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, MAC1, MAC, MACS

In the vocational certificate category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, 3 in instructor (training) techniques, 3 in police equipment/techniques, and 3 in weapons proficiency/self-defense, for a total of 30 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in criminal investigation, 3 in criminal law (evidence), 3 in criminal procedure (legal), 3 in report writing, 3 in correctional procedures, 3 in human relations/applied psychology, 3 in introduction to physical security/safety, and 3 in instructor (training) techniques, for a total of 24 semester hours (3/79).

Recommendation, MACM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MAC1, MAC, MACS. In the upper-division baccalaureate category, 3 semester hours in administrative procedures and 3 in supervision techniques (3/79).

NER—ML-001

MOLDER

ML3
ML2
ML1
MLC

Exhibit Dates: 6/71–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *ML3:* Molder, Third Class (E-4). *ML2:* Molder, Second Class (E-5). *ML1:* Molder, First Class (E-6). *MLC:* Chief Molder (E-7). *MLCS:* Senior Chief Molder (E-8). *MLCM:* Master Chief Molder (E-9).

Description

Summary: Operates foundries aboard ship and at shore stations; makes molds and cores; sets up flasks; prepares heats; operates melting furnaces and pours castings of ferrous and nonferrous metals and alloys; cleans castings; casts a variety of navy equipment components, including bearings, brass and bronze fittings, and cast iron, steel, and aluminum items; operates muller and controls sand quality; performs maintenance on assigned equipment; works from shop drawings. *ML3:* Constructs bench and floor molds; makes and installs cores, rebabbits bearings, prepares and evaluates molding sands, arranges molding sequence; identifies navy babbits; charges induction furnaces; selects casting alloys; identifies metals and alloys; selects and applies gas purging methods; repairs refractory linings; cleans furnaces and ladles; uses and maintains pyrometers, electric and pneumatic power tools, and oxyacetylene welding/cutting equipment; makes carbon dioxide process cores; reads and works from shop drawings and sketches; maintains shop files; determines weights of castings; cleans castings. *ML2:* Able to perform the duties required for ML3; makes molds directly from castings and analyzes casting quality; allows for shrinkage effects of cast steel and monel; identifies and uses bonding materials; designs gating systems; determines proper use of refractories; identifies type and effects of gas absorption; selects methods of obtaining proper casting solidification; controls the reaction of sodium silicate binders with CO_2 and heat; determines cause and method of detection of casting defects related to foundry sand, melting and pouring practice, and molding technique; determines and obtains proper molding pressure for metals cast; identifies abrasive materials and their uses; orders repair parts and special tools for equipment maintenance; prepares sketches from mechanical drawings and existing parts. *ML1:* Able to perform the duties required for ML2; interprets materials lists and modifications; maintains manuals; estimates time, material, and cost for foundry work; designs gating systems and special techniques for shrinkage allowance and finish machining; designs and makes internal chills; identifies types and effects of grain formation in cast metal; determines mold buoyancy; melts steel and monel; distinguishes mechanical properties of cast metals and alloys; interprets binary phase diagrams and cooling curves for commonly used casting compositions; interprets cooling characteristics of metal microstructures; makes special mixture cores; determines gassing and baking times for carbon dioxide cores: schedules and checks maintenance work. *MLC:* Able to perform the duties required for ML1; designs castings with inserts and determines pouring rates and temperatures; trains and supervises personnel in foundry operations, metal identification, and pyrometry; prepares quarterly preventive maintenance schedules.

Recommendation, ML3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 4 semester hours in foundry or metal casting and 1 in manufacturing processes (12/78).

Recommendation, ML2

In the vocational certificate category or in the lower-division baccalaureate/associate category, 6 semester hours in foundry or metal casting and 2 in manufacturing processes (12/78).

Recommendation, ML1

In the vocational certificate category, 8 semester hours in foundry or metal casting, and 2 in manufacturing processes. In the lower-division baccalaureate/associate degree category, 8 semester hours in foundry or metal casting, 2 in manufacturing processes, 1 in materials science, and 1 in shop supervision, for a total of 12 semester hours (12/78).

Recommendation, MLC

In the vocational certificate category, 8 semester hours in foundry or metal casting, and 2 in manufacturing processes. In the lower-division baccalaureate/associate degree category, 8 semester hours in foundry or metal casting, 2 in manufacturing processes, 1 in materials science, 2 in personnel supervision, 2 in shop supervision, 1 in record keeping, and 1 in safety management, for a total of 17 semester hours (12/78).

NER-ML-002

MOLDER, SENIOR CHIEF AND MASTER CHIEF

MLCS
MLCM

Exhibit Dates: 6/71–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

May progress from *either* MLC, Chief Molder (E-7), *or* PMC, Chief Patternmaker (E-7). *MLCS:* Senior Chief Molder (E-8). *MLCM:* Master Chief Molder (E-9).

Description

MLCS: Able to perform the duties required for MLC (Chief Molder) or PMC (Chief Patternmaker); provides information and advises on utilization, capabilities, reliability, and operations of foundry; prepares local directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel for maximum utilization; serves as ship's supervisor; supervises operations of foundries and pattern shops; instructs personnel in physical and mechanical properties of metals, alloys, and plastics; coordinates construction and use of master patterns, molds, and castings; organizes and schedules training programs and evaluates their effectiveness; initiates improvements; administers long-range planned and preventive maintenance programs. *MLCM:* Able to perform the duties required for MLCS; assists repair officer in management of repair department; serves as technical advisor to repair officer; plans, organizes, implements, and controls activities in compliance with policy, operation orders, and directives; forecasts future requirements; plans and initiates actions to satisfy safety requirements; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, MLCS

In the vocational certificate category, use the recommendation for *either* MLC (Chief Molder) in exhibit NER-ML-001 *or* PMC (Chief Patternmaker) in exhibit NER-PM-001. In the lower-division baccalaureate/associate degree category, 1 additional semester hour in personnel supervision, 1 additional semester hour in record keeping, and 2 in human relations; *add either* the 17 semester hours for MLC (Chief Molder) in exhibit NER-ML-001, for a total of 21 semester hours, *or* the 16 semester hours for PMC (Chief Patternmaker) in exhibit NER-PM-001, for a total of 20 semester hours, as appropriate. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 for management problems (12/78).

Recommendation, MLCM

In the vocational certificate category, the recommendation is the same as that for MLCS. In the lower-division baccalaureate/associate degree category, 1 additional semester hour in personnel supervision, 2 additional semester hours in record keeping, and 3 semester hours in human relations; *add either* the 17 semester hours for MLC (Chief Molder) in exhibit NER-ML-001, for a total of 23 semester hours, *or* the 16 semester hours for PMC (Chief Patternmaker) in exhibit NER-PM-001, for a total of 22 semester hours, as appropriate. In the the upper-division baccalaureate category, 6 semester hours for field experience in management, and 3 in management problems (12/78).

NER-MM-001

MACHINIST'S MATE

MM3
MM2
MM1
MMC
MMCS
MMCM

Exhibit Dates: 6/71–Present.

Occupational Field: 3 (Marine Engineering).

Career Pattern

FN: Fireman (E-3). *MM3:* Machinist's Mate Third Class (E-4). *MM2:* Machinist's Mate Second Class (E-5). *MM1:* Machinist's Mate First Class (E-6). *MMC:* Chief Machinist's Mate (E-7). *MMCS:* Senior Chief Machinist's Mate (E-8). *MMCM:* Master Chief Machinist's Mate (E-9).

Description

Summary: Operates, repairs, and performs maintenance on ship propulsion machinery, auxiliary equipment, outside machinery (including steering engine, windlasses, hoisting machinery, and elevators), food preparation equipment, laundry equipment, and refrigeration and air-conditioning equipment. *MM3:* Removes and replaces filters in hydraulic systems; drains and fills hydraulic systems; uses the following test equipment: freon leak detector, stroboscope, deadweight tester, and radiac, lube oil, and feedwater equipment; uses and files blueprints, microform, aperture cards and ship's drawings; inspects, lubricates, and tests galley and laundry equipment and deck machinery; performs distillate and brine tests; operates all pumps associated with main engine operation; carries out prescribed procedures when malfunctions occur; identifies the principles of refrigeration cycles; tests for refrigerant leaks; completes maintenance data forms; exercises environmental control procedures to prevent or minimize air pollution and oil spills. *MM2:* Able to perform the duties required for MM3; calibrates pressure and temperature sensing devices; carries out chemical water treatment procedures; performs maintenance on whistles, sirens, anchor windlasses, cranes, winches, steering engines, food preparation and dishwashing machinery, and air and reefer compressors; operates and performs mechanical maintenance on propulsion system equipment including jacking gears, main engines, and steam turbine generators; adjusts thermal expansion valves, pressure switches, thermostats, and regulator valves; removes moisture from air-conditioning and refrigeration systems by evacuation; may serve as engineroom watch supervisor (in port); completes maintenance reports; inventories installed equipment; orders repair parts and tools. *MM1:* Able to perform the duties required for MM2; performs hydrostatic tests of evaporator and heat exchanger tubes and shells; uses main circulating pump to pump engine room bilges; identifies factors governing main propulsion plant efficiency, causes of poor performance, and appropriate remedies; tests, dehydrates, and recharges refrigeration and air-conditioning systems; may serve as engineroom watch supervisor (underway); instructs engineroom personnel in casualty control and plant operation procedures; reviews completed maintenance data forms; prepares weekly schedules of preventive maintenance; prepares environmental pollution control reports. *MMC:* Able to perform the duties required for MM1; prepares equipment and machinery performance and repair reports; monitors the qualifications of engineroom watchstanders; supervises personnel in carrying out casualty control procedures; plans and schedules workload; prepares quarterly maintenance schedules; supervises and assists personnel in the repair, overhaul, and procurement of ship propulsion and auxiliary equipment. *MMCS:* Able to perform the duties required for MMC; identifies deficiencies of equipment and machinery; provides information and advises on utilization, capabilities, reliability, and operations; prepares directives and instructions for attaining organization objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; reviews requirements for watchstanding qualifications; prepares correspondence; trains and supervises personnel; organizes and schedules training programs; administers a long-range planned maintenance program; supervises environmental pollution control programs. *MMCM:* Able to perform the duties required for MMCS; develops and monitors safety programs; advises personnel about new technical information; plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; prepares major maintenance and repair schedules; supervises inspections and surveys of equipment; develops operating budgets and monitors expenditures.

Recommendation, MM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in machinery maintenance and repair, 3 in maintenance technology, and 1 in blueprint reading, and credit in air-conditioning and refrigeration on the basis of institutional evaluation, for a minimum total of 14 semester hours (12/78).

Recommendation, MM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 10 semester hours in machinery maintenance and repair, 3 in maintenance technology, and 1 in blueprint reading, 1 in record keeping, and 3 in air-conditioning and refrigeration, for a total of 18 semester hours (12/78).

Recommendation, MM1

In the vocational certificate category, 12 semester hours in machinery maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, 1 in record keeping, and 3 in air-conditioning and refrigeration, for a total of 20 semester hours. In the lower-division baccalaureate/associate degree category, 12 semester hours in machinery maintenance and repair, 3 in maintenance technology, and 1 in blueprint reading, 1 in record keeping, 3 in air-conditioning and refrigeration, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations, for a total of 27 semester hours (12/78).

Recommendation, MMC

In the vocational certificate category, the recommendation is the same as that for MM1. In the lower-division baccalaureate/associate degree category, 12 semester hours in machinery maintenance and repair, 3 in maintenance technology, 1 in blueprint reading, 1 in record keeping, 3 in air-conditioning and refrigeration, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations, for a total of 29 semester hours (12/78).

Recommendation, MMCS

In the vocational certificate category, the recommendation is the same as that for MM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

Recommendation, MMCM

In the vocational certificate category, the recommendation is the same as that for MM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, and 3 in management problems (12/78).

NER-MN-001

MINEMAN

MN3
MN2
MN1
MNC
MNCS
MNCM

Exhibit Dates: Pending evaluation.

NER-MR-001

MACHINERY REPAIRMAN

MR3
MR2
MR1
MRC
MRCS
MRCM

Exhibit Dates: 6/72–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *MR3:* Machinery Repairman, Third Class (E-4). *MR2:* Machinery Repairman, Second Class (E-5). *MR1:* Machinery Repairman, First Class (E-6). *MRC:* Chief Machinery Repairman (E-7). *MRCS:* Senior Chief Machinery Repairman (E-8). *MRCM:* Master Chief Machinery Repairman (E-9).

Description

Summary: Performs maintenance on shipboard equipment and machinery using the following machine shop equipment: lathes, milling machines, boring mills, grinders, power hacksaws, drill presses, and other machine tools. *MR3:* Operates and performs maintenance on all machine shop equipment that is required to repair, rebuild, or fabricate parts to maintain shipboard equipment and machinery; constructs geometric forms; reads sketches, diagrams, and blueprints; solves basic algebraic and trigonometric layout problems; computes English and metric systems of measurement; operates bench or pedestal drills, pedestal grinders, machine reamers, engine lathes, planers or shapers, milling machines, pantographs, disk metal bandsaw, arbor and hydraulic presses, and oxyacetylene equipment; performs computations to make threads, press fits, tapers, and keyways; completes maintenance data forms. *MR2:* Able to perform the duties required for MR3; maintains blueprint files for machine shop; uses machine shop equipment which includes attachments with special capabilities; performs hardness tests on metals, plastics, and casting; able to select metals and plastics according to specifications; completes maintenance reports; inventories installed equipment; orders repair parts and tools. *MR1:* Able to perform the duties required for MR2; operates equipment that analyzes ferrous and non-ferrous metals; performs heat-treating operations; repairs fixed machinery and equipment; performs alignment test on all shop equipment; reviews completed maintenance data forms; prepares weekly maintenance schedules. *MRC:* Able to perform the duties required for MR1; supervises maintenance and repair activities; estimates time and material requirements; maintains work center records; prepares quarterly maintenance schedules; directs the replacement, installation, maintenance, and repair of complex repair shop equipment; supervises inventory of tools, equipment, and supplies. *MRCS:* Able to perform the duties required for MRC; provides information and advice on utilization, capabilities, reliability, and operations; prepares directives and instructions for attaining organization objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence, organizes and schedules training programs; administers a long-range planned maintenance program. *MRCM:* Able to perform the duties required for MRCS; develops and maintains safety programs; plans, organizes, implements, and controls activities; reviews personnel, equipment, and material requirements, and forecasts future requirements; supervises inspections and surveys of equipment; develops operating budgets and monitors expenditures.

Recommendation, MR3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in machine technology, 3 in principles and operations of machine tools, 2 in machine shop mathematics, 1 in blueprint reading, and 1 in introduction to the metric system of measurement, for a total of 10 semester hours (12/78).

Recommendation, MR2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 6 semester hours in machine technology, 4 in principles and operations of machine tools, 3 in blueprint reading, and 2 in machine shop mathematics, 1 in record keeping, and 1 in introduction to the metric system of measurement, for a total of 17 semester hours (12/78).

Recommendation, MR1

In the vocational certificate category, 6 semester hours in machine technology, 6 in principles and operations of machine tools, 3 in blueprint reading, 3 in machine shop mathematics, 1 in introduction to the metric system of measurement, and 1 in record keeping, for a total of 20 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in machine technology, 6 in principles and operation of machine tools, 3 in blueprint reading, 3 in machine shop mathematics, 1 in introduction to the metric system of measurement, 1 in record keeping, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations, for a total of 27 semester hours (12/78).

Recommendation, MRC

In the vocational certificate category, the recommendation is the same as that for MR1. In the lower-division baccalaureate/associate degree category, 6 semester hours in machine technology, 6 in principles and operation of machine tools, 3 in blueprint reading, 3 in machine shop mathematics, 1 in introduction to the metric system of measurement, 1 in record keeping, 3 in personnel supervision, 3 in maintenance management, and 3 in human relations, for a total of 29 semester hours (12/78).

Recommendation, MRCS

In the vocational certificate category, the recommendation is the same as that for MR1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MRC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, and 3 in management problems (12/78).

Recommendation, MRCM

In the vocational certificate category, the recommendation is the same as that for MR1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MRC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, and 3 in management problems (12/78).

NER-MS-001

MESS MANAGEMENT SPECIALIST

MS3
MS2
MS1
MSC
MSCS
MSCM

Exhibit Dates: 1/75–Present.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *MS3:* Mess Management Specialist, Third Class (E-4). *MS2:* Mess Management Specialist, Second Class (E-5). *MS1:* Mess Management Specialist, First Class (E-6). *MSC:* Chief Mess Management Specialist (E-7). *MSCS:* Senior Chief Mess Management Specialist (E-8). *MSCM:* Master Chief Mess Management Specialist (E-9).

Description

Summary: Operates and manages Navy messes and living quarters established to subsist and accommodate Navy personnel; assists supply officers in ordering, storing, accounting for and preparing food; maintains housing facilities. *MS3:* Measures, weighs, blends and mixes various foods; prepares fruits, vegetables, meats, and salads by roasting, frying, broiling, and boiling; operates specialized food service equipment; portions and serves prepared food to consumers; maintains and cleans food service preparation and service areas and associated equipment; knows the causes and transmission methods of food-borne diseases and the relationship to safe temperatures, storage, preparation, and serving of food; staffs reception facilities and provides housekeeping services in housing facilities. *MS2:* Able to perform the duties required for MS3; applies advanced culinary techniques; establishes work schedules and serving line procedures; assists in maintaining cost control procedures and the ordering, maintenance, and rotation of stock. *MS1:* Able to perform the duties required for MS2; supervises a food service facility; assigns duties and supervises preparation and serving methodology; maintains sales analysis records and ensures that the proper relationships of cost to portion control are maintained; ensures that sanitation measures are carried out; modifies the menu and preparation methods to meet forecasts. *MSC:* Able to perform the duties required for MS1; serves as the administrator of a small food service facility or as an intermediate supervisor in a large facility; plans and conducts training programs; prepares schedules; estimates, maintains, and interprets financial records. *MSCS:* Able to perform the duties required for MSC; implements policy and procedure to attain organization objectives; selects, assigns, and evaluates personnel; establishes work priorities; organizes, schedules, and evaluates training programs; determines budgets and operating goals. *MSCM:* Able to perform the duties required for MSCS; establishes goals, objectives, and priorities in area of responsibility; reviews personnel, equipment, and material requirements and determines future requirements and space utilization; develops interdepartment training programs; develops operating budgets and monitors expenditures.

Recommendation, MS3

In the vocational certificiate category, 6 semester hours in quantity food preparation, 3 in kitchen operations, and 2 in sanitation, for a total of 11 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in quantity food preparation, 1 in sanitation, and 1 for a food service internship, for a total of 5 semester hours (3/79).

Recommendation, MS2

In the vocational certificate category, 9 semester hours in quantity food preparation, 3 in sanitation, 3 in kitchen operations, and 2 in food service administration, for a total of 17 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 2 in sanitation, 2 for a food service internship, and 2 in food service administration, for a total of 12 semester hours. In the upper-division baccalaureate category, 2 semester hours in sanitation and 2 for a food service internship (3/79).

Recommendation, MS1

In the vocational certificate category, 9 semester hours in quantity food preparation, 3 in sanitation, 3 in kitchen operations, 2 in food service administration, and 1 in record keeping, for a total of 18 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 2 in sanitation, 2 for a food service internship, 2 in food service administration, 1 in record keeping, and 3 in personnel supervision, for a total of 16 semester hours. In the upper-division baccalaureate category, 2 semester hours in sanitation, 2 for a food service internship, and 2 in personnel management, for a total of 6 semester hours (3/79).

Recommendation, MSC

In the vocational certificate category, 9 semester hours in quantity food preparation, 3 in sanitation, 3 in kitchen operations, 2 in food service administration, and 2 in record keeping, for a total of 19 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in quantity food preparation, 2 in sanitation, 2 for a food service internship, 2 in food service administration, 2 in record keeping, 1 in office management, 3 in food cost control, and 3 in personnel supervision, for a total of 21 semester hours. In the upper-division baccalaureate category, 2 semester hours in sanitation, 2 for a food service internship, 3 in personnel management, and 1 in food cost control, for a total of 8 semester hours (3/79).

Recommendation, MSCS and MSCM

In the vocational certificate category, or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for MSC. In the upper-division baccalaureate category, 2 semester hours in sanitation, 2 for a food service internship, 3 in personnel management, 1 in food cost control, and 2 in human relations, for a total of 10 semester hours (3/79).

NER-MT-001

Missile Technician

MT3
MT2
MT1
MTC

Exhibit Dates: 6/73–Present.

Occupational Field: 9 (Ordnance Systems).

Career Pattern

SN: Seaman (E-3). *MT3:* Missile Technician, Third Class (E-4). *MT2:* Missile Technician, Second Class (E-5). *MT1:* Missile Technician, First Class (E-6). *MTC:* Chief Missile Technician (E-7). *FTCS:* Senior Chief Fire Technician (E-8). *FTCM:* Master Chief Fire Technician (E-9).

Description

Summary: Operates, tests, and repairs fleet ballistic missile systems and missile launcher equipment; performs maintenance (electrical, electronic, pneumatic, and hydraulic) on ballistic missiles and associated handling and launching equipment. *MT3:* Aligns and calibrates basic electronic circuits; under supervision, performs troubleshooting, calibration, adjustments, and tests on missile launcher, and missile support equipment; uses circuit diagrams and mechanical drawings; identifies basic digital circuits; operates weapons system equipment; completes maintenance data forms. *MT2:* Able to perform the duties required for MT3; inspects and repairs pneumatic and hydraulic systems; isolates malfunctions and replaces defective electronic circuit components; performs troubleshooting, calibration, adjustments, and tests on missile, launcher and missile support equipment; maintains logs and records; completes maintenance reports; inventories installed equipment. *MT1:* Able to perform the duties required for MT2; serves as a nuclear weapons handling supervisor; supervises the maintenance and operation of missile and missile launching and handling equipment; reviews completed maintenance forms; prepares weekly maintenance schedules. *MTC:* Able to perform the duties required for MT1; coordinates and directs maintenance program; assures compliance with nuclear weapons safety rules; prepares records and reports; prepares quarterly maintenance schedules; serves as shop supervisor.

Recommendation, MT3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, and 3 in applied mathematics (12/78).

Recommendation, MT2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in applied physics, and 2 in basic hydraulics, for a total of 16 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in basic hydraulics, for a total of 14 semester hours (12/78).

Recommendation, MT1

In the vocational certificate category, the recommendation is the same as that for MT2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in basic hydraulics, 2 in personnel supervision, 2 in maintenance management, and 3 in human relations, for a total of 21 semester hours (12/78).

Recommendation, MTC

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in applied physics, 2 in basic hydraulics, and 1 in record keeping, for a total of 17 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in basic hydraulics, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping, for a total of 24 semester hours (12/78).

NER-MU-001

Musician

MU3
MU2
MU1
MUC
MUCS
MUCM

Exhibit Dates: 6/71–Present.

Occupational Field: 18 (Musician)

Career Pattern

SN: Seaman (E-3). *MU3:* Musician, Third Class (E-4). *MU2:* Musician, Second Class (E-5). *MU1:* Musician, First Class (E-6). *MUC:* Chief Musician (E-7). *MUCS:* Senior Chief Musician (E-8). *MUCM:* Master Chief Musician (E-9).

Description

Summary: Provides music for various functions and ceremonies as members of

Navy unit bands; performs on one or more designated instruments. *NOTE:* Musicians are further identified by the following NEC (Navy Enlisted Classification) codes:

MU-3801 Flute/Piccolo Instrumentalist.
MU-3802 Oboe Instrumentalist.
MU-3803 Clarinet Instrumentalist.
MU-3804 Bassoon Instrumentalist.
MU-3805 Saxophone Instrumentalist.
MU-3806 Trumphet/Cornet Instrumentalist.
MU-3807 French Horn Instrumentalist.
MU-3808 Baritone/Euphonium Instrumentalist.
MU-3809 Trombone Instrumentalist.
MU-3811 Tuba/String Bass Instrumentalist.
MU-3812 Guitar/Bass Drum Instrumentalist.
MU-3813 Percussion Instrumentalist.
MU-3814 Piano/Bass Drum Instrumentalist.
MU-3825 Vocalist.
MU-3851 Assistant Bandleader.

MU3: Performs as a member of a musical ensemble; performs first parts of elementary music with good intonation and characteristic tone (and with good diction, for vocalists); performs from memory all major and minor scales; is responsive to musical interpretation, including dynamics, tempo, musical terms, and devices peculiar to dance music; able to perform elementary melodic improvisation, including alphabetical chord symbols notated in standard dance and popular music; able to identify, by sound, simple chord progessions used in popular music; able to identify, by sight and sound, major, minor, diminished, and augmented triads in root position and inversions; able to notate melodic (single part) dictation of elementary music; able to transcribe, transpose, and copy parts from concert scores; able to transpose elementary music, at sight, one tone higher or lower than written. *MU2:* Able to perform the duties required for MU3; performs first parts of intermediate music; performs intermediate melodic improvisation following the alphabetic chord symbols notated in standard dance and popular music; interprets chord symbols used in modern dance music up to and including seventh chords, and identifies these chords with the correct symbols; performs, from memory, ten standard dance tunes and standard advanced solos; notates melodic (single part) dictation of intermediate music; identifies, by sound, intermediate chord progression used in popular music; arranges popular melodies for a five-piece combo; rehearses and prepares a small combo for public appearances; rehearses and conducts the National Anthem and one prepared march. *MU1:* Able to perform the duties required for MU2; performs first parts of advanced music at sight; performs advanced melodic improvisation following the alphabetic chord symbols notated in standard dance and popular music; analyzes and identifies all chords from piano "lead sheets" and "stock" piano parts; performs, from memory, eighteen standard dance tunes and advanced solos; harmonizes melodies in four parts, indicating figured bass and using diatonic triads, dominant and diatonic seventh chords, higher dominant dischords, simple modulation, and secondary dominants; arranges songs for an instrumental/vocal ensemble; notates melodic, single part dictation in moderately difficult music; rehearses and conducts a ceremonial band in a program of marches, popular music, and ceremonial music; rehearses and prepares for public performance a dance band of at least eight instruments; assembles and maneuvers a marching band. *MUC:* Able to perform the duties required for MU1; performs advanced solos from memory; rehearses and conducts ten marches and three difficult selections or overtures; prepares a musical program for public performance utilizing dance band and/or combo, and featuring solo or entertainment capabilities of band members; identifies, by sound, advanced chord progressions used in popular music; analyzes scores for harmonic content, modulations and nonharmonic tones, and melodic and harmonic content of piano sheet music; corrects mistakes and omissions in printing of alphabetical chord symbols; arranges 32 or more measures, including introduction and ending of a song or melody for a small concert band, and a popular song or folk song for a seventeen-piece dance band; supervises professional and military instruction; supervises the daily operation of a performing unit of a Navy band; evaluates requests for band performance; initiates and coordinates the preparation of posters, pictures, biographies, radio/TV spots, news releases, programs, and other promotional material required for a Navy band; supervises reports, records maintenance, and other personnel administration requirements; supervises the custody, care, and maintenance of music material; prepares requests for procurement and disposition of music material. *MUCS:* Able to perform the duties required for MUC; conducts a large concert band in performance of advanced literature; prepares a musical program for radio or television, utilizing dance band and/or combo, and featuring solo or entertainment capabilities of band personnel; analyzes dominant and diatonic seventh chords in root position and inversions; harmonizes melodies in four parts, indicating figured bass, using diatonic triads with inversions, dominant seventh chords with inversions, and nonharmonic tones; organizes and schedules training programs and evaluates their effectiveness; manages, schedules, and coordinates the rehearsal and performance of all units of a Navy band; manages the preparation and distribution of posters, pictures, biographies, radio/TV spots, news releases, programs, and other promotional material; establishes and implements an effective community relations program; manages non-musical logistic support for a Navy band; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; manages procurement, control, maintenance, and disposition of music, musical equipment, and supplies. *MUCM:* Able to perform the duties required for MUCS; plans, organizes, implements, and controls activities; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements, and forecasts future requirements; evaluates musical background proficiency and potential of applicants for the Navy music program; develops operating budgets and monitors expenditures.

Recommendation, MU3

In the lower-division baccalaureate/associate degree category, 4 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 2–4 in applied performance (individual instruction), and 2 in performing ensembles, for a total of 10 or 12 semester hours (3/79).

Recommendation, MU2

In the lower-division baccalaureate/associate degree category, 4 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 4–6 in applied performance (individual instruction), 2 in performing ensembles, 1 in elementary conducting, 1 in marching band, and 1 in concert band, for a total of 15 or 17 semester hours (3/79).

Recommendation, MU1

In the lower-division baccalaureate/associate degree category, 8 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 4–6 in applied performance (individual instruction), 4 in performing ensembles, 1 in elementary conducting, 2 in marching band, and 1 in concert band, for total of 22 or 24 semester hours (3/79).

Recommendation, MUC

In the lower-division baccalaureate/associate degree category, 12 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 4–6 in applied performance (individual instruction), 1 in applied performance (secondary instrument), 4 in performing ensembles, 1 in elementary conducting, 3 in marching band, and 1 in concert band, for a total of 28 or 30 semester hours. In the upper-division baccalaureate category, 2 semester hours in arranging (3/79).

Recommendation, MUCS

In the lower-division baccalaureate/associate degree category, 16 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 4–6 in applied performance (individual instruction), 1 in applied performance (secondary instrument), 4 in performing ensembles, 1 in elementary conducting, 3 in marching band, and 1 in concert band, for a total of 32 or 34 semester hours. In the upper-division baccalaureate category, 4 semester hours in arranging, 2 in advanced conducting, 2 in band management, and 2 in personnel management, for a total of 10 semester hours (3/79).

Recommendation, MUCM

In the lower-division baccalaureate/associate degree category, 16 semester hours in music theory (including harmony, ear training, and sight singing), 2 in jazz theory/improvisation, 4–6 in applied performance (individual instruction), 1 in applied performance (individual instruction in secondary instrument), 4 in performing ensembles, 1 in elementary conducting, 3 in marching band, 1 in concert band, 1 in elementary class piano, 1 in instrumental techniques, and 2 in public speaking, for a total of 36 or 38 semester hours. In the upper-division baccalaureate category, 6 semester hours in arranging, 4 in advanced conducting, 3 in dance band techniques, 3 in band management, and 3 in personnel management, for a total of 19 semester hours. In the graduate degree category, 2 semester hours in advanced conducting (3/79).

NER-NC-001

NAVY COUNSELOR

NC1
NCC
NCCS
NCCM

Exhibit Dates: 8/74–Present.

Occupational Field: 15 (Administration).

Career Pattern

May have progressed from Petty Officer Second Class (E-5) *of any rating. NC1:* Navy Counselor First Class (E-6). *NCC:* Chief Navy Counselor (E-7). *NCCS:* Senior Chief Navy Counselor (E-8). *NCCM:* Master Chief Navy Counselor (E-9).

Description

Summary: Interviews, advises, and counsels enlisted personnel about career development opportunities, benefits, and regulations; organizes and implements recruiting and retention programs. *NC1:* Prepares recruiting and pre-enlistment brochures and kits; writes news releases; writes and delivers public relations and recruiting talks; participates in community events; conducts interviews, counsels, and advises enlisted personnel; administers, scores, and records results of vocational preference and aptitude tests; applies mass-media advertising; informs personnel of local agencies capable of aiding naval personnel and their families. *NCC:* Able to perform the duties required for NC1; conducts radio and television interviews; applies Federal Communications Commission regulations and Naval policies concerning broadcasts; trains and supervises subordinates; may specialize in career counseling, recruiting, or drugs and alcohol rehabilitation counseling. *NCCS:* Able to perform the duties required for NCC; may serve as area supervisor of a large counseling program; drafts correspondence; interviews, evaluates, and assigns personnel; verifies accuracy of administrative reports; collects, develops, and disseminates career program information; develops plans for organizing and implementing surveys; develops motivation programs; organizes and schedules training program for subordinates. *NCCM:* Able to perform the duties required for NCCS; forecasts future personnel requirements; plans and initiates action to satisfy personnel requirements; provides information to the command on regulations, procedures, and practices applicable to recruiting and retention; develops written materials for counseling program; evaluates effectiveness of recruiting and retention programs; monitors, analyzes, and makes recommendations concerning personnel utilization; provides technical assistance to subordinate commands; develops operating budget and monitors expenditures.

Recommendation, NC1

In the vocational certificate category, 1 semester hour in applied psychology, 1 in community relations, 3 in communication (speech), 3 in communication (written), and 3 in human relations, for a total of 11 semester hours. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 1 in introduction to mass media techniques, 2 in interviewing techniques, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, and 3 in human relations, for a total of 17 semester hours (12/76).

Recommendation, NCC

In the vocational certificate category, the recommendation is the same as that for NC1. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 2 in interviewing techniques, 3 in introduction to mass media techniques, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, and 3 in human relations, for a minimum total of 19 semester hours; *if the duty assignment was career counselor,* additional credit in applied psychology and in occupational choice and career analysis on the basis of institutional evaluation; *if the duty assignment was drugs and alcohol rehabilitation counselor,* additional credit in applied psychology, psychological counseling theory and techniques, behavior crisis intervention, and drugs and alcohol abuse on the basis of institutional evaluation (12/76).

Recommendation, NCCS

In the vocational certificate category, the recommendation is the same as that for NC1. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 2 in interviewing techniques, 3 in introduction to mass media techniques, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, 3 in human relations, and 3 in management electives, for a minimum total of 22 semester hours; *if the duty assignment was career counselor,* additional credit in applied psychology and in occupational choice and career analysis on the basis of institutional evaluation; *if the duty assignment was drugs and alcohol rehabilitation counselor,* additional credit in applied psychology, psychological counseling theory and techniques, behavior crisis intervention, and drugs and alcohol abuse on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in problems in human relations (12/76).

Recommendation, NCCM

In the vocational certificate category, the recommendation is the same as that for NC1. In the lower-division baccalaureate/associate degree category, 1 semester hour in applied psychology, 1 in community relations, 2 in interviewing techniques, 3 in communication (speech), 3 in communication (written), 3 in career information and counseling, 3 in human relations, 3 in introduction to mass media techniques, and 6 in management electives, for a minimum total of 25 semester hours; *if the duty assignment was career counselor,* additional credit in applied psychology and in occupational choice and career analysis on the basis of institutional evaluation; *if the duty assignment was drugs and alcohol rehabilitation counselor,* additional credit in applied psychology, psychological counseling theory and techniques, behavior crisis intervention, and drugs and alcohol abuse on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 for a practicum in vocational counseling, and 6 in problems in human relations, for a total of 12 semester hours (12/76).

NER-OM-001

OPTICALMAN

OM3
OM2
OM1
OMC
OMCS

Exhibit Dates: 6/71–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

SN: Seaman (E-3). *OM3:* Opticalman, Third Class (E-4). *OM2:* Opticalman, Second Class (E-5). *OM1:* Opticalman, First Class (E-6). *OMC:* Chief Opticalman (E-7). *OMCS:* Senior Chief Opticalman (E-8). *PICM:* Master Chief Precision Instrumentman (E-9).

Description

Summary: Performs maintenance on small navigational instruments, binoculars, gunsights, range finders, submarine and turret periscopes, night vision sights, and other optical instruments. *OM3:* Operates lathe, milling machine, bench grinder, and drill press; uses cutting lubricants on metals; tempers, hardens, and anneals various metals; joins metals by soft and silver solder; repairs and overhauls binoculars, telescopes, marine alidades, fixed prism gunsight telescopes, azimuth and bearing circles, sextants, stadimeters, and magnetic compasses; performs maintenance on image-intensifying and night vision sights, and on external fittings of submarine periscopes; recements lenses using a lens centering instrument; uses the metric and English systems of measurement to determine focal lengths, dioptric strength, and magnifying power of a positive and negative lens; uses and maintains hand tools; completes maintenance data forms. *OM2:* Able to perform the duties required for OM3; reads blueprints and sketches; makes mechanical parts for optical instruments using lathe, milling machine, and drill press; computes calculations required for determining taper per foot, cutting speeds, and surface speeds; removes and installs submarine periscopes; repairs and overhauls ship-mounted binoculars, submarine periscopes, and tilting-prism gunsight telescopes; completes maintenance reports; inventories installed equipment; orders repair parts and tools. *OM1:* Able to perform the duties required for OM2; establishes alignment references, autocollination, base and line transfer, and azimuth transfer; performs complete overhaul of MK21 rangefinders; prepares and maintains records, logs, reports, and work requests; maintains current naval publications concerning standard optical equipment; reviews completed maintenance data forms; prepares weekly maintenance schedule. *OMC:* Able to perform the duties required for OM1; coordinates repair and maintenance programs for measuring instruments; supervises equipment inspections; supervises training of personnel in repair and overhaul of optical equipment; plans, schedules, and assigns repair work; prepares quarterly maintenance schedules; supervises repair of precision measuring mechanical and optical instruments; applies laboratory calibration services providing standards for pressure, temperature, flow, and linear measurements. *OMCS:* Able to perform the duties required for OMC; prepares directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; administers repair maintenance records; organizes, schedules, and evaluates training programs; coordinates quality assurance audits; prepares work estimates; administers a long-range planned maintenance program.

Recommendation, OM3

In the vocational certificate category, 1 semester hour in machine tool operation, 2 in fabrication techniques, 3 in physics (optics), and 3 in optical laboratory, for a total of 9 semester hours. In the lower-division baccalaureate/associate degree category, 1 semester hour in machine tool operation, 2 in fabrication technology, 3 in physics (optics), and 3 in optical laboratory, for a total of 9 semester hours (12/78).

Recommendation, OM2

In the vocational certificate category, 3 semester hours in machine tool operation, 3 in fabrication techniques, 5 in physics (optics), 5 in optical laboratory, 1 in blueprint reading, and 2 in optical measurement, for a minimum total of 19 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist* 3 semester hours in technical mathematics, for a total of 22 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 3 in fabrication technology, 5 in physic (optics), 5 in optical laboratory, 1 in blueprint reading, and 2 in optical measurement, for a minimum total of 19 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics, for a total of 22 semester hours.

Recommendation, OM1

In the vocational certificate category, 3 semester hours in machine tool operation, 3 in fabrication techniques, 5 in physics (optics), 6 in optical laboratory, 1 in blueprint reading, and 2 in optical measurement, for a minimum total of 20 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics, for a total of 23 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 3 in fabrication technology, 5 in physics (optics), 6 in optical laboratory, 1 in blueprint reading, 2 in optical measurement, 3 in record keeping, 2 in personnel supervision, and 1 in shop supervision, for a minimum total of 26 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics, for a total of 29 semester hours (12/78).

Recommendation, OMC

In the vocational certificate category, the recommendation is the same as that for OM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 3 in fabrication technology, 5 in physics (optics), 6 in optical laboratory, 1 in blueprint reading, 2 in optical measurement, 3 in record keeping, 3 in personnel supervision, and 1 in shop supervision, for a minimum total of 27 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics, for a total of 30 semester hours (12/78).

Recommendation, OMCS

In the vocational certificate category, the recommendation is the same as that for OM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in machine tool operation, 3 in fabrication technology, 5 in physics (optics), 6 in optical laboratory, 1 in blueprint reading, 2 in optical measurement, 3 in record keeping, 3 in personnel supervision, 1 in shop supervision, and 2 in human relations, for a minimum total of 29 semester hours; *if NEC was IM-1821, Precision Physical Measuring Specialist,* 3 semester hours in technical mathematics, for a total of 32 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management (12/78).

NER-OS-001

OPERATIONS SPECIALIST

OS3
OS2
OS1
OSC
OSCS
OSCM

Exhibit Dates: 6/72–Present. NOTE: Until 6/73, the title of this rating was Radarman (RD).

Occupational Field: 2 (Ship Operations).

Career Pattern

SN: Seaman (E-3). *OS3 (RD3):* Operations Specialist Third Class (Radarman Third Class) (E-4). *OS2 (RD2):* Operations Specialist Second Class (Radarman Second Class) (E-5). *OS1 (RD1):* Operations Specialist First Class (Radarman First Class) (E-6). *OSC (RDC):* Chief Operations Specialist (Chief Radarman) (E-7). OSCS (RDCS): Senior Chief Operations Specialist (Senior Chief Radarman) (E-8). *OSCM (RDCM):* Master Chief Operations Specialist (Master Chief Radarman) (E-9).

Description

Summary: Operates radar and associated equipment; identifies and maintains a display (plot) of the movement of ships, aircraft, missiles, and natural objects detected by observing a radar; maintains a radar navigation plot of own ship's movement; evaluates information collected by radar and appropriately disseminates it; performs routine preventive maintenance on radar equipment; operates radiotelephones. *OS3 (RD3):* Operates a radar/console screen, observing objects detected by the radar and displayed on the radar screen; identifies the objects detected, determines their movement, and disseminates this information to users by internal communications systems; operates radiotelephones; plots and maintains current display of objects detected; determines own ship's position on nautical charts using ranges, bearing, and standard navigational symbols; changes given positions into grid coordinates; knows the basic functions and interrelations of the modulator, receiver, antenna, control, and indicator units; reads electronic block diagrams; solves maneuvering board problems for course, speed, closest point of approach, true wind, and desired wind. *OS2 (RD2):* Able to perform the duties required for OS3 (RD3); tests radar and associated electronic equipment; supervises and trains personnel operating radar and associated electronic equipment, plotting display information, operating radiotelephones and log keeping; solves course and speed problems, using polar coordinate graph paper; performs duties of marine coastal radar navigator, using nautical charts; maintains strategic geographic and surface plots; interprets international and inland Nautical Rules of the Road. *OS1 (RD1):* Able to perform the duties required for OS2 (RD2); assigns duties to operations specialist personnel and supervises their performance; performs as supervisor of a watch section, directing the task performance of plotters, radiotelephone operators, radar operators, and other members of the watch section; prepares weekly schedules of preventive maintenance. *OSC (RDC):* Able to perform the duties required for OS1 (RD1); supervises the training program for operation specialists; prepares quarterly preventive maintenance schedules; supervises the performance of preventive maintenance; serves as an assistant to the officer in charge of the Communications Information Center; serves as piloting officer during radar assisted piloting. *OSCS (RDCS):* Able to perform the duties required for OSC (RDC); prepares correspondence and other written instructions and directives; organizes, schedules and evaluates training program; administers long-range radar equipment maintenance program; provides superiors with information and advice on utilization and capabilities of personnel, equipment, and material in area of responsibility; interviews, evaluates, and assigns personnel; establishes work priorities. *OSCM (RDCM):* Able to perform the duties required for OSCS (RDCS); performs technical administrative functions; establishes objectives and sets priorities; reviews personnel, equipment, and material requirements; plans, organizes, and implements activities in accordance with policies and procedures; coordinates repair and maintenance programs in accordance with ship's operating schedule; develops budgets and monitors expenditures.

Recommendation, OS3 (RD3)

In the vocational certificate category, 6 semester hours in radar operations, 3 in applied mathematics, 3 in seamanship, and 2 in basic electronics, for a total of 14 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship and 2 in basic electronics (12/76).

Recommendation, OS2 (RD2)

In the vocational certificate category, 6 semester hours in radar operations, 3 in applied mathematics, 3 in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), and 1 in record keeping, for a total of 19 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), 1 in record keeping, and 1 in personnel supervision, for a total of 11 semester hours (12/76).

Recommendation, OS1 (RD1)

In the vocational certificate category, 6 semester hours in radar operations, 3 in applied mathematics, 3 in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), and 2 in record keeping, for a minimum total of 20 semester hours; *if designated as a qualified air controller,* additional credit in air traffic control on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), 2 in record keeping, and 2 in personnel supervision, for a minimum total of 13 semester hours; *if designated as a qualified air controller,* additional credit in air traffic control on the basis of institutional evaluation (12/76).

Recommendation, OSC (RDC)

In the vocational certificate category, the recommendation is the same as that for OS1 (RD1). In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), 3 in personnel supervision, 3 for field experience in management, and 2 in record keeping, for a minimum total of 17 semester hours; *if designated as a qualified air controller,* additional credit in air traffic control on the basis of institutional evaluation (12/76).

Recommendation, OSCS (RDCS)

In the vocational certificate category, the recommendation is the same as that for OS1 (RD1). In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in basic electronics, 3 in coastwise navigation and piloting (radar navigation), 3 in personnel supervision, 3 for field experience in management, 3 in management electives, and 2 in record keeping, for a minmum total of 20 semester hours; *if designated as a qualified air controller,* additional credit in air traffic control on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for a practicum in management and additional credit in human relations on the basis of institutional evaluation (12/76).

Recommendation, OSCM (RDCM)

In the vocational certificate category, the recommendation is the same as that for OS1 (RD1). In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for OSCS. In the upper-division baccalaureate category, 6 semester hours for a practicum in management, 3 in management problems, and 3 in personnel management, and additional credit in human relations on the basis of institutional evaluation, for a minimum total of 12 semester hours (12/76).

NER-OT-001

Ocean Systems Technician

OT3
OT2
OT1
OTC
OTCS
OTCM

Exhibit Dates: Pending evaluation.

NER-PC-001

Postal Clerk

PC3
PC2
PC1
PCC
PCCS
PCCM

Exhibit Dates: 6/72–Present

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *PC3:* Postal Clerk Third Class (E-4). *PC2:* Postal Clerk Second Class (E-5). *PC1:* Postal Clerk First Class (E-6). *PCC:* Chief Postal Clerk (E-7). *PCCS:* Senior Chief Postal Clerk (E-8). *PCCM:* Master Chief Postal Clerk (E-9).

Description

Summary: Operates Navy post office. *PC3:* Performs postal counterwork, including selling stamps, processing international money orders, and collecting and remitting COD charges; performs general clerical duties, including mail sorting and distribution, and record maintenance; able to type 20 words per minute. *PC2:* Able to perform the duties required for PC3; establishes mail transportation schedules and routes; supervises and trains personnel in the operation of a Navy post office; supervises preparation, maintenance, and distribution of local postal records and reports. *PC1:* Able to perform the duties required for PC2; audits and reviews inspection reports of Navy post offices; prepares parent office reports; able to assume the duties, responsibilities, and functions of a postal officer when necessary. *PCC:* Able to perform the duties required for PC1; supervises postal counter and sorting activities; ensures compliance with customs procedures; supervises postal office procedures. *PCCS:* Able to perform the duties required for PCC: conducts inspections of Navy post offices and develops recommendations for the improvement of postal operations; prepares correspondence; develops evaluation programs dealing with personnel and management efficiency. *PCCM:* Able to perform the duties required for PCCS; develops and monitors operating budgets; forecasts future manpower and material requirements; develops basic plans for implementing policy statements and directives; establishes goals, objectives, and priorities in own area of responsibility.

Recommendation, PC3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, *if the student is enrolling in a postal service management program,* 3 semester hours in mail processing and 2 in postal customer services (12/76).

Recommendation, PC2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping; *if the student is enrolling in a postal service management program,* additional credit as follows: 2 semester hours in postal customer services, 3 in postal delivery and collection, and 4 in mail processing, for a combined total of 11 semester hours (12/76).

Recommendation, PC1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping and 3 in general clerical procedures; *if the student is enrolling in a postal service management program,* additional credit as follows: 3 semester hours in postal customer services, 3 in postal delivery and collection, and 6 in mail processing, for a combined total of 17 semester hours (12/76).

Recommendation, PCC

In the vocational certificate category, 2 semester hours in record keeping and 3 in general clerical procedures; *if the student is enrolling in a postal service management program,* additional credit as follows: 3 semester hours in postal customer services, 3 in postal delivery and collection, 6 in mail processing, and 2 in postal problems analysis, for a combined total of 19 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in general clerical procedures, 3 in personnel supervision, and additional credit for field experience in management on the basis of institutional evaluation, for a minimum total of 8 semester hours; *if the student is enrolling in a postal service management program,* additional credit as follows: 3 semester hours in postal customer services, 3 in postal delivery and collection, 6 in mail processing, and 2 in postal problems analysis, for a combined total of 22 semester hours (12/76).

Recommendation, PCCS

In the vocational certificate category, the recommendation is the same as that for PCC. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in general clerical procedures, 3 in personnel supervision, 3 in office management, 3 in communication (written), and additional credit for field experience in management on the basis of institutional evaluation, for a minimum total of 14 semester hours; *if the student is enrolling in a postal service management program,* additional credit as follows: 3 semester hours in postal customer services, 3 in postal delivery and collection, 6 in mail processing, and 2 in postal problems analysis, for a combined minimum total of 28 semester hours. In the upper-division baccalaureate category, credit in human relations and for a practicum in management on the basis of institutional evaluation (12/76).

Recommendation, PCCM

In the vocational certificate category, the recommendation is the same as that for PCC. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in general clerical procedures, 3 in personnel supervision, 3 in office management, 3 in communication (written), 3 for management electives, and additional credit for field experience in management on the basis of institutional evaluation, for a minimum total of 17 semester hours; *if the student is enrolling in a postal service management program,* additional credit as follows; 3 semester hours in postal customer services, 3 in postal delivery and collection, 6 in mail processing, and 2 in postal problems analysis, for a combined minimum total of 31 semester hours. In the upper-division baccalaureate category, 3 semester hours in management problems, and additional credit in human relations, in personnel management, and for a practicum in management on the basis of institutional evaluation (12/76).

NER-PH-001

Photographer's Mate

PH3
PH2
PH1
PHC
PHCS
PHCM

Exhibit Dates: 6/71–Present.

Occupational Field: 17 (Media).

Career Pattern

AN: Airman (E-3). *PH3:* Photographer's Mate Third Class (E-4). *PH2:* Photographer's Mate Second Class (E-5). *PH1:* Photographer's Mate First Class (E-6). *PHC:* Chief Photographer's Mate (E-7). *PHCS:* Senior Chief Photographer's Mate (E-8). *PHCM:* Master Chief Photographer's Mate (E-9).

Description

Summary: Makes pictorial records of historical and newsworthy events, finished prints, strip photographs, and mosaics; maintains photographic equipment and accessories. *PH3:* Operates 16-mm silent motion picture cameras, 4" x 5" press cameras, copy cameras, view cameras, 2¼" format roll film cameras, 35-mm rangefinder-equipped still cameras, 35-mm single-lens-reflex cameras, contact printers, black-and-white projection printers, sensitometers, densitometers, color projection printers, color analyzers, exposure meters, and automatic processing machines; photographs small metal parts, architectural structures, persons (formal and informal portraits), and interior and exterior scenes; processes black-and-white transparencies from black-and-white continuous tone originals, high contrast transparencies from black-and-white line originals, black-and-white transparencies from multicolored originals, high-contrast black-and-white transparencies from color line originals, color trans- parencies maintaining the density and color balance of the original, sheet and roll film to negatives and affixes identification information, black-and-white negatives from multicolored originals to show complete separation of the colors as tones, black-and-white contact prints from selected negatives, black-and-white projection prints from negatives with variable contrast paper and the correct printing filters, and color corrected prints (custom prints) from color negatives; uses painted light techniques, filters, natural lighting, light enhancement techniques, photoflash techniques, stop motion techniques, selective focus techniques, and basic lighting arrangement; produces prints from copy negatives to show complete separation of the colors as tones; prepares stock/working solutions from prepackaged materials; prepares print rooms for printing black-and-white negatives; observes copyright and reproduction regulations; performs operator maintenance on photographic equipment and accessories; performs weekly and monthly maintenance on automatic processing machines. *PH2:* Able to perform the duties required for PH3; operates and maintains portable TV cameras and portable video tape recorders; photographs the interiors of large structures, harbor and port facilities, ships, aircraft, and terrain; processes second-generation black-and-white negatives and large format (16" x 20" minimum) black-and-white, double weight prints; uses motion picture scene-sequencing technique, motion picture editing techniques (silent motion picture film), broad-, short-, and side-lighting techniques, subject posing techniques, and background selection techniques; selects equipment, scale, and coverage for hand-held aerial photographs; establishes master filter packs for printing color negatives; orders standard stock items. *PH1:* Able to perform the duties required for PH2; prepares storyboards for use in producing silent motion pictures; prepares slide presentations with taped narrative; uses TV spot news motion picture coverage techniques and motion picture editing techniques; photographs cathode ray tube imagery for recording and image retrieval/interpretation; evaluates control charts to determine trends, shifts, and cycles and monitors process control; prepares duplicate negatives and positives from original film for image interpretation; supervises operator maintenance or photographic equipment and accessories; supervises photographic work center. *PHC:* Able to perform the duties required for PH1; provides silent motion picture film for release to television stations for news shows; plans missions for hand-held aerial photographic coverage; supervises maintenance of photographic files and records; ensures that forwarding and releasing deadline requirements are met; schedules maintenance of photographic equipment and accessories and maintains history cards; procures nonstandard stock items. *PHCS:* Able to perform the duties required for PHC; ensures compliance with copyright and reproduction regulations; prepares local directives and instructions; prepares correspondence; interviews, assigns, and evaluates personnel to assure maximum utilization; organizes, schedules, and evaluates training programs; determines photographic equipment and supply requirements and coordinates procurement. *PHCM:* Able to perform the duties required for PHCS; reviews manpower authorizations; reviews personnel, equipment, and material requirements and forecasts future needs; establishes goals and sets priorities; develops operating budgets and monitors expenditures.

Recommendation, PH3

In the vocational certificate category, 6 semester hours in camera and accessories operation, 6 in photography techniques, and 6 in photo processing, for a total of 18 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 2 in camera techniques, 2 in darkroom techniques, 2 for an internship in photography/cinema, and 1 in color photography, for a total of 10 semester hours (2/77).

Recommendation, PH2

In the vocational certificate category, the recommendation is the same as that for PH3. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 3 in camera techniques, 3 in darkroom techniques, 2 in film production, 2 for an internship in photography/cinema, 1 in portraiture, and 1 in color photography, for a total of 15 semester hours (2/77).

Recommendation, PH1

In the vocational certificate category, the recommendation is the same as that for PH3. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 3 in camera techniques, 3 in darkroom techniques, 3 in film production, 3 for an internship in photography/cinema, 1 in portraiture, 1 in color photography, 1 in technical photography, and 1 in personnel supervision, for a total of 19 semester hours (2/77).

Recommendation, PHC

In the vocational certificate category, the recommendation is the same as that for PH3. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 3 in camera techniques, 3 in darkroom techniques, 3 in film production, 3 for an internship in photography/cinema, 2 in technical photography, 2 in personnel supervision, 1 in maintenance management, 1 in portraiture, and 1 in color photography, for a total of 22 semester hours (2/77).

Recommendation, PHCS

In the vocational certificate category, the recommendation is the same as that for PH3. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic photography, 3 in camera techniques, 3 in darkroom techniques, 3 in film production, 3 for an internship in photography/cinema, 3 in personnel supervision, 2 in technical photography, 2 in maintenance management, 1 in portraiture, and 1 in color photography, for a total of 24 semester hours (2/77).

Recommendation, PHCM

In the vocational certificate category, the recommendation is the same as that for PH3. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PHCS. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in organization and planning (2/77).

NER-PI-001

PRECISION INSTRUMENTMAN, MASTER CHIEF

PICM

Exhibit Dates: 6/71–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

May progress from *either* IMCS, Senior Chief Instrumentman (E-8) or OMCS, Senior Chief Opticalman (E-8). *PICM:* Master Chief Precision Instrumentman (E-9).

Description

Able to perform the duties required for IMCS (Senior Chief Instrumentman) or OMCS (Senior Chief Opticalman); develops procedures for conducting safety programs and monitoring compliance; plans, organizes, implements, and controls activities in accordance with policies and directives; forecasts future requirements; establishes goals, objectives, and priorities; reviews personnel, equipment, and material requirements; assists in the management of records; coordinates liaison between repair activities and ship or shipyard; manages repair division; schedules repair work; develops operating budgets and monitors expenditures.

Recommendation

In the vocational certificate category, use the recommendation for *either* IM1 (Instrumentman, First Class) in exhibit NER-IM-001 *or* OM1 (Opticalman, First Class) in exhibit NER-OM-001, as appropriate. In the lower-division baccalaureate/associate degree category, use the recommendation for *either* IMCS (Senior Chief Instrumentman) in exhibit NER-IM-001 *or* OMCS (Senior Chief Opticalman) in exhibit NER-OM-001, as appropriate. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-PM-001

PATTERNMAKER

PM3
PM2
PM1
PMC

Exhibit Dates: 6/71–Present.

Occupational Field: 4 (Ship Maintenance).

Career Pattern

FN: Fireman (E-3). *PM3:* Patternmaker, Third Class (E-4). *PM2:* Patternmaker, Second Class (E-5). *PM1:* Patternmaker, First Class (E-6). *PMC:* Chief Patternmaker (E-7). *MLCS:* Senior Chief Molder (E-8). *MLCM:* Master Chief Molder (E-9).

Description

Summary: Makes wooden, plaster, and metal patterns, core boxes, and flasks used by molders in a Navy foundry. *PM3:* Works from shop drawings and sketches to fabricate simple templates; lays out and constructs (using shrinkage rule) simple one-piece patterns; applies standard color-code finishes; positions and mounts patterns on match boards (flat and irregular parting surfaces); identifies patternmaking woods; computes board feet of lumber; uses wood fillers; identifies glues by characteristics and uses; identifies ferrous and non-ferrous metal by chip and file test; uses and cares for pyrometers and hand tools; maintains shop files. *PM2:* Able to perform the duties required for PM3; prepares sketches from mechanical drawings; fabricates layouts from mechanical drawings, freehand sketches, and castings; constructs layout of developments and cuts templates for intersection of two cylinders and cylinder having inclined surface; lays out and constructs master patterns and patterns used for composite casting; constructs molds using flexible molding compounds; uses principles of mold construction and foundry methods for partings, core arrangement, and drawing patterns from molds; designs and constructs flasks for patterns; lays out and constructs patterns and coreboxes for flanged fittings, spool patterns, elbow patterns, handwheel, pulley, shipboard standard billets, pump castings, impellers, globe valves, gate valves, steam chests, manifolds, and louvered and jacketed end-bells; identifies lumber structure and cuts, and effects of shrinkage, swelling and warping; records measurements and computes areas, volumes, weights, and quantities of lumber for patterns; designs and manufactures labor-saving devices; completes maintenance reports. *PM1:* Able to perform the duties required for PM2; constructs patterns for carbon dioxide molding process; lays out and constructs patterns for conical stave constructed patterns and for volute pump castings; constructs patterns requiring inter-casting of members; constructs intricate gypsum cement patterns and core boxes; lays out and constructs patterns and core boxes for double action impellers, and spur, bevel, and worm gear blanks; manufactures patterns using plastic materials; constructs tensile test coupon patterns with gating system and risers attached; designs and uses pattern padding required for control of solidification; determines need for and constructs full core boxes for one-piece cores; determines requirements for and constructs proper gating system attached to patterns; prepares maintenance schedules. *PMC:* Able to perform the duties required for PM1; estimates cost for patternmaking jobs; prepares and maintains records and reports required for repair department; solves problems of casting design; applies principles of mold construction and foundry methods for minimizing stresses, strains, and hot spots by using chills, risers, and fillets; controls shrinkage by the use of chills, risers, and pods; conducts on-the-job training; supervises and trains personnel in the design, construction, layout, and manufacture of patterns, in identifying metals, and in the use of immersion and optical pyrometers; prepares quarterly maintenance schedules.

Recommendation, PM3 and PM2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading and sketching, 3 in introduction to construction, 1 in machine shop, and 1 in use and care of tools, for a total of 8 semester hours (12/78).

Recommendation, PM1

In the vocational certificate category, 3 semester hours in blueprint reading and sketching, 3 in introduction to construction, 2 in machine shop, and 2 in use and care of tools, for a total of 10 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading and sketching, 3 in introduction to construction, 2 in machine shop, 2 in use and care of tools, and 1 in shop supervision, for a total of 11 semester hours (12/78).

Recommendation, PMC

In the vocational certificate category, the recommendation is the same as that for PM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in blueprint reading and sketching, 3 in introduction to construction, 2 in machine shop, 2 in use and care of tools, 2 in shop supervision, 2 in personnel supervision, 1 in record keeping, and 1 in safety, for a total of 16 semester hours (12/78).

NER—PN-001

PERSONNELMAN

PN3
PN2
PN1
PNC
PNCS
PNCM

Exhibit Dates: 6/71–Present.

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *PN3:* Personnelman Third Class (E-4). *PN2:* Personnelman Second Class (E-5). *PN1:* Personnelman First Class (E-6). *PNC:* Chief Personnelman (E-7). *PNCS:* Senior Chief Personnelman (E-8). *PNCM:* Master Chief Personnelman (E-9).

Description

Summary: Performs enlisted personnel administration duties. *PN3:* Performs routine office functions; performs receptionist duties; prepares and maintains personnel records; assists personnel in completing forms, letters, and requests; operates duplicating equipment; able to type reports and correspondence at 30 words per minute; prepares correspondence. *PN2:* Able to perform the duties required for PN3; organizes and monitors maintenance of files; requisitions, maintains, issues, and accounts for educational manuals and materials; advises personnel on the availability of training and educational materials, service school eligibility, availability of duty assignments, and emergency relief agencies; able to type 35 words per minute. *PN1:* Able to perform the duties required for PN2; prepares statistical summaries and reports; applies methods of work simplification; reviews completed job orders and work requests; drafts instructions and notices; supervises the procurement, custody, and handling of publications; conducts briefings and interviews concerning dependency benefits and pre-retirement matters; able to type at 40 words per minute. *PNC:* Able to perform the duties required for PN1; supervises and trains personnel in classification procedures; reviews applications for special programs leading to higher education and/or commissioned rank; serves as office manager; interprets and analyzes manpower authorizations; supervises the preparation and transmittal of documents; establishes and administers training programs for personnelmen; briefs and advises personnel; performs task analysis. *PNCS:* Able to perform the duties required for PNC; supervises, monitors, and evaluates local operations; plans staffing surveys and analyzes survey results; organizes and schedules training programs; evaluates effectiveness of programs and initiates improvements. *PNCM:* Able to perform the duties required for PNCS; performs organizational analyses; develops research reports; plans, organizes, implements, and controls activities in compliance with overall policy and directives; develops operating budgets and monitors expenditures.

Recommendation, PN3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing and 1 in office procedures (12/76).

Recommendation, PN2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in typing, 1 in filing and records management, and 3 in office procedures, for a total of 5 semester hours (12/76).

Recommendation, PN1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 1 semester hour in filing and records management, 2 in typing, 3 in office procedures, and 3 in communication (written), for a total of 9 semester hours (12/76).

Recommendation, PNC

In the vocational certificate category, the recommendation is the same as that for PN1. In the lower-division baccalaureate/associate degree category, 1 semester hour in filing and records management, 2 in typing, 3 in office procedures, 3 in communication (written), 3 in office management and 3 in human relations, and additional credit for field experience in management on the basis of institutional evaluation, for a minimum total of 15 semester hours. In the upper-division baccalaureate category, 3 semester hours in job analysis (12/76).

Recommendation, PNCS

In the vocational certificate category, the recommendation is the same as that for PN1. In the lower-division baccalaureate/associate degree category, 1 semester hour in filing and records management, 2 in typing, 2 in personnel supervision, 3 in office procedures, 3 in communication (written), 3 in office management, 3 in human relations, and 3 in management electives, and additional credit for field experience in management on the basis of institutional evaluation, for a minimum total of 20 semester hours. In the upper-division baccalaureate category, 3 semester hours in job analysis, and 3 in test administration, and additional credit for a practicum in management on the basis of institutional evaluation, for a minimum total of 6 semester hours (12/76).

Recommendation, PNCM

In the vocational certificate category, the recommendation is the same as that for PN1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for PNCS. In the upper-division baccalaureate category, 3 semester hours in job analysis, 3 in test administration, and 3 in management problems, and additional credit for a practicum in management on the basis of institutional evaluation, for a minimum total of 9 semester hours (12/76).

NER-PR-001

AIRCREW SURVIVAL EQUIPMENTMAN

PR3
PR2
PR1
PRC
PRCS
PRCM

Exhibit Dates: 6/71–Present.

Occupational Field: 5 (Aviation Maintenance/Weapons).

Career Pattern

AN: Airman (E-3). *PR3:* Aircrew Survival Equipmentman Third Class (E-4). *PR2:* Aircraft Survival Equipmentman Second Class (E-5). *PR1:* Aircrew Survival Equipmentman First Class (E-6). *PRC:* Chief Aircrew Survival Equipmentman (E-7). *PRCS:* Senior Chief Aircrew Survival Equipmentman (E-8). *PRCM:* Master Chief Aircrew Survival Equipmentman (E-9).

Description

Summary: Inspects, maintains, and repairs parachutes, survival equipment, and flight and protective clothing and equipment. *PR3:* Packs and rigs parachutes; packs and equips life rafts; sews, stitches, and tacks material; installs, repairs, and replaces fasteners, grommets, and speedy rivets; performs preflight, postflight, turnaround, and conditional inspections of aircrew survival equipment; maintains components of oxygen masks; operates, lubricates, and adjusts sewing machines; operates carbon dioxide recharge equipment. *PR2:* Able to perform the duties required for PR3; is a first-line supervisor of 4-7 persons working in parachute lofts and survival gear work centers; operates oxygen systems components test stand and liquid oxygen converter test stand; operates test equipment for cartridge actuated devices associated with parachute systems; inspects, cleans, tests, fits, adjusts, repairs and/or replaces aircrew protective equipment; inspects, rigs, packs, and repairs aircrew inflatable survival equipment; rigs, inspects, packs, and maintains seatcontained survival kits; tests oxygen breathing-regulators and liquid oxygen converters and components. *PR1:* Able to perform the duties required for PR2; constructs, modifies, and repairs aircrew survival and associated equipment; repairs oxygen breathing-regulators, emergency oxygen systems, and liquid oxygen converters and components; maintains carbon dioxide recharge equipment; maintains test equipment for cartridge actuated devices associated with parachute systems; maintains technical publications and directives; supervises inspections; prepares weekly schedules of preventive maintenance; inventories, orders, and turns in equipment, spare parts, and materials; troubleshoots and repairs sewing machine malfunctions. *PRC:* Able to perform the duties required for PR1; monitors compliance with safety program; interprets maintenance directives and instructions; ensures maximum utilization of personnel, equipment, and facilities; estimates material, equipment, and manpower requirements; initiates recommendations concerning work center repair capabilities and facility requirements; prepares quarterly schedules of preventive maintenance; prepares reports concerning material and equipment. *PRCS:* Able to perform the duties required for PRC; recommends changes to ground and flight safety programs; assists in aircraft accident investigations; collects, disseminates, and ensures compliance with technical information concerning assigned equipment; prepares local directives and instructions for attaining objectives and improving operations; prepares correspondence; provides information and advice regarding operations in area of responsibility; implements a program for interviewing, assigning, and evaluating personnel; organizes, schedules, and evaluates training programs; administers long-range maintenance programs. *PRCM:* Able to perform the duties required for PRCS; formulates guidelines for use in safety inspections; plans and estimates workload commitments; monitors implementation of preventive maintenance program; ensures that procedures for requisitioning, receiving, storing, and transferring equipment are followed; prepares studies concerning maintenance and staff problems; plans, organizes, and coordinates functions between work centers and branches in the maintenance department; reviews and forecasts material, equipment, and personnel requirements; establishes objectives and sets priorities in area of responsibility; reviews and evaluates inspection records and quality control reports; develops operating budgets and monitors expenditures.

Recommendation, PR3

In the vocational certificate category or the lower-division baccalaureate/associate degree category, 9 semester hours in aviation safety equipment maintenance and repair and 3 in aviation maintenance technology (2/77).

Recommendation, PR2

In the vocational certificate category, 12 semester hours in aviation safety equipment repair and maintenance and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 12 semester hours in aviation safety equipment repair and maintenance, 6 in aviation maintenance technology, and 2 in personnel supervision, for a total of 20 semester hours (2/77).

Recommendation, PR1

In the vocational certificate category, 15 semester hours in aviation safety equipment repair and maintenance and 6 in aviation maintenance technology. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation safety equipment repair and maintenance, 6 in aviation maintenance technology, and 3 in personnel supervision, for a total of 24 semester hours (2/77).

Recommendation, PRC

In the vocational certificate category, the recommendation is the same as that for PR1. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation safety equipment repair and maintenance, 6 in aviation maintenance technology, 3 in personnel supervision, and 3 in shop management, for a total of 27 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management (2/77).

Recommendation, PRCS

In the vocational certificate category, the recommendation is the same as that for PR1. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation safety equipment repair and maintenance, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in shop management, 3 in maintenance management, and 2 in safety management, for a total of 32 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in organization and planning (2/77).

Recommendation, PRCM

In the vocational certificate category, the recommendation is the same as that for PR1. In the lower-division baccalaureate/associate degree category, 15 semester hours in aviation safety equipment repair and maintenance, 6 in aviation maintenance technology, 3 in personnel supervision, 3 in shop management, 3 in maintenance management, and 3 in safety management, and 3 in principles of administration, for a total of 36 semester hours. In the upper-division baccalaureate category, 3 semester hours for field experience in management, 3 in management problems, 3 in organization and planning, and 3 in quality control, for a total of 12 semester hours (2/77).

NER-QM-001

QUARTERMASTER

QM3
QM2
QM1
QMC
QMCS
QMCM

Exhibit Dates: 6/71–Present.

Occupational Field: 2 (Ship Operations).

Career Pattern

SN: Seaman (E-3). *QM3:* Quartermaster Third Class (E-4). *QM2:* Quartermaster Second Class (E-5). *QM1:* Quartermaster First Class (E-6). *QMC:* Chief Quartermaster (E-7). *QMCS:* Senior Chief Quartermaster (E-8). *QMCM:* Master Chief Quartermaster (E-9).

Description

Summary: Stands watch as assistant to officer of the deck and to the navigator; serves as ship's steerman; performs ship control, navigation, and bridge watch duties; serves as petty officer in charge of small craft. *QM3:* Inventories and procures nautical charts and publications; uses and corrects sailing directions, light lists, coast pilots, and related publications and charts; uses basic course plotting instruments, lead line, depth sounder, and compass; identifies aids to navigation; handles plain language radio communications and visual communication; maintains compass record book and weather observation sheet. *QM2:* Able to perform the duties required for QM3; uses U.S. Coast Guard publications concerning Nautical Rules of the Road, maneuvering board, and relative bearings; selects charts for voyage planning; determines danger angles and danger bearings; determines ship's position by celestial observations; recognizes the significance of dew point, relative humidity, temperature, atmospheric pressure, wind force and direction, cloud formation, and sea state in general weather forecasting; supervises bridge personnel; inventories installed equipment and spare parts; orders repair parts and tools. *QM1:* Able to perform the duties required for QM2; adjusts compasses and prepares deviation tables; adjusts and aligns sextants and stadimeters; interprets weather charts; plots probable path and location of storm centers; prepares a great circle track, using gnomonic and conformal projection charts; maintains the ship's equipment configuration accounting system; prepares weekly schedules of preventive maintenance and sees that they are implemented; prepares oceanographic reports such as wave observation log, ship's ice log, adjusted track log, and sounding journal or log; supervises and trains personnel in navigation, watchstanding, and use and care of navigational charts, tables, and publications. *QMC:* Able to perform the duties required for QM1; prepares quarterly schedules of preventive maintenance; requisitions equipment; interviews, selects, and evaluates personnel for the navigation department; plans emergency drills for navigation department personnel; conducts briefings for navigation department personnel. *QMCS:* Able to perform the duties required for QMC; prepares local directives and instructions for attaining organizational objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel; organizes and schedules training programs, evaluates their effectiveness, and initiates improvements; monitors expenditures of funds allocated to navigation department; administers long-range maintenance program. *QMCM:* Able to perform the duties required for QMCS; plans, organizes, implements, and controls activities in compliance with policies, procedures, directives, and orders; forecasts future requirements for area of responsibility and plans and initiates action to satisfy the requirements; establishes objectives and sets priorities for area of responsibility; reviews personnel, equipment, and material requirements and makes recommendations concerning them; prepares narrative reports; develops operating budgets and monitors expenditures.

Recommendation, QM3

In the vocational certificate category, or in the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship (12/76).

Recommendation, QM2

In the vocational certificate category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in practical mathematics, 3 in record keeping, 1 in applied meteorology, and 1 in practical marine instrumentation, and additional credit in celestial navigation on the basis of institutional evaluation, for a minimum total of 14 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in record keeping, 2 in personnel supervision, and 1 in practical marine instrumentation, and additional credit in celestial navigation on the basis of institutional evaluation, for a minimum total of 12 semester hours. In the upper-division baccalaureate category, 3 semester hours in coastwise navigation and piloting (12/76).

Recommendation, QM1, QMC

In the vocational certificate category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in practical mathematics, 3 in record keeping, 3 in celestial navigation, 1 in applied meteorology, and 1 in practical marine instrumentation, for a total of 17 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in celestial navigation, 3 in record keeping, 3 in personnel supervision, and 1 in practical marine instrumentation, for a total of 16 semester hours. In the upper-division baccalaureate category, 3 semester hours in coastwise navigation and piloting, 3 in celestial navigation, and 3 in advanced navigation, for a total of 9 semester hours (12/76).

Recommendation, QMCS

In the vocational certificate category, the recommendation is the same as that for QM1. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 in coastwise navigation and piloting, 3 in celestial navigation, 3 in record keeping, 3 in personnel supervision, 3 in management electives, and 1 in practical marine instrumentation, for a total of 19 semester hours. In the upper-division baccalaureate category, 3 semester hours in coastwise navigation and piloting, 3 in celestial navigation, 3 in advanced navigation, and 3 for a practicum in management, and additional credit in human relations on the basis of institutional evaluation, for a minimum total of 12 semester hours (12/76).

Recommendation, QMCM

In the vocational certificate category, the recommendation is the same as that for QM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for QMCS. In the upper-division baccalaureate category, 3 semester hours in coastwise navigation and piloting, 3 in celestial navigation, 3 in advanced navigation, 3 for a practicum in management, 3 in personnel management, and 3 in management problems, and additional credit in human relations on the basis of institutional evaluation, for a minimum total of 18 semester hours (12/76).

NER-RD-001

RADARMAN

RD3
RD2
RD1
RDC
RDCS
RDCM

Exhibit Dates: 6/72–6/73. NOTE: Effective 6/73, the title of this rating was changed to Operations Specialist (OS). For occupational field, career pattern, description, and recommendations, refer to the exhibit for Operations Specialist, NER-OS-001.

NER-RM-001

RADIOMAN

RM3
RM2
RM1
RMC
RMCS
RMCM

Exhibit Dates: 6/71–Present.

Occupational Field: 21 (Communications).

Career Pattern

SN: Seaman (E-3). *RM3:* Radioman, Third Class (E-4). *RM2:* Radioman, Second Class (E-5). *RM1:* Radioman, First Class (E-6). *RMC:* Chief Radioman (E-7). *RMCS:* Senior Chief Radioman (E-8). *RMCM:* Master Chief Radioman (E-9).

Description

Summary: Transmits, receives, and processes all forms of telecommunications through various transmission media; operates, monitors, and controls telecommunications transmission, reception, terminal, and processing equipment. *RM3:* Identifies common electrical and electronic terms and symbols; operates general purpose electronic test equipment; operates and interprets readings of radio frequency power meters and voltage standing wave radio meters; detects intrusion, jamming, and interference; operates broadcast using multichannel system; encodes, decodes, sends, and receives messages; relates, reflection, refraction, and ionosphere conditions to radiowave propagation; cleans, lubricates, and inspects equipment; prepares maintenance data forms; uses and maintains handtools. *RM2:* Able to perform the duties required for RM3; operates and interprets reading of tube testers and transistor testers, oscilloscopes, signal generators, counters, and distortion analyzers; supervises handling of telecommunications record traffic; interprets commercial traffic regulations and procedures related to Naval telecommunications; traces messages; complies with search and rescue and international radio procedures; identifies capabilities and limitations of various transmission and receiving systems; identifies composition of a teletype signal; effects operation of assigned communications facilities under simulated emergency conditions; performs operational tests and adjustments on equipment. *RM1:* Able to perform the duties required for RM2; identifies the principles of digital logic; interprets schematics and wiring diagrams; trains and instructs personnel in communications operations and procedures; reviews completed maintenance data forms; maintains records and operating logs; prepares weekly preventive maintenance schedule; identifies the principles of microwave and satellite communications; identifies the principles of modulation, heterodyning, and multiplexing. *RMC:* Able to perform the duties required for RM1; organizes and supervises communication centers; prepares operational communications reports; maintains accounting procedures for equipment, inventories, and work flow; organizes duties and assigns tasks; organizes and administers a maintenance and repair program; prepares quarterly schedules of preventive maintenance. *RMCS:* Able to perform the duties required for RMC; prepares technical and administrative reports; prepares directives and instructions for attaining organization objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; organizes and schedules training programs; evaluates new equipment; administers a long-range maintenance program. *RMCM:* Able to perform the duties required for RMCS; manages a communications center; forecasts future requirements; develops operating budgets and monitors expenditures.

Recommendation, RM3

In the vocational certificate category, 2 semester hours in electronic communications systems, 3 in basic electronics, and 6 in operation of communications systems, for a total of 11 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in electronic communications systems, 3 in basic electronics, and 4 in operation of communications systems, for a total of 9 semester hours (12/78).

Recommendation, RM2

In the vocational certificate category, 3 semester hours in electronic communications systems, 3 in basic electronics, and 8 in operation of communications systems, for a total of 14 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in electronic communications systems, 3 in basic electronics, and 6 in operation of communications systems, for a total of 12 semester hours (12/78).

Recommendation, RM1

In the vocational certificate category, 4 semester hours in electronic communications systems, 3 in basic electronics, and 10 in operation of communications systems, and 1 in record keeping, for a total of 18 semester hours. In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic communications systems, 3 in basic electronics, 8 in operation of communications systems, 3 in human relations, 2 in maintenance management, 2 in personnel supervision, and 1 in record keeping, for a total of 23 semester hours (12/78).

Recommendation, RMC

In the vocational certificate category the recommendation is the same as that for RM1. In the lower-division baccalaureate/associate degree category, 4 semester hours in electronic communications systems, 3 in basic electronics, 8 in operation of communications systems, 3 in human relations, 3 in maintenance management, 3 in personnel supervision, 1 in report writing, and 1 in record keeping, for a total of 26 semester hours (12/78).

Recommendation, RMCS

In the vocational certificate category, the recommendation is the same as that for RM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RMC. In the upper-division baccalaureate category, 3 semester hours for field experience in management, and 3 in management problems (12/78).

Recommendation, RMCM

In the vocational certificate category, the recommendation is the same as that for RM1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for RMC. In the upper-division baccalaureate category, 6 semester hours for field experience in management, and 3 in management problems (12/78).

NER-RP-001

RELIGIOUS PROGRAM SPECIALIST

RP3
RP2
RP1
RPC
RPCS
RPCM

Exhibit Dates: 1/79–Present. Pending evaluation.

NER-SH-001

SHIP'S SERVICEMAN

SH3 (SHT3, SHB3, SHL3, SHS3)
SH2
SH1
SHC
SHCS
SHCM

Exhibit Dates: 6/72–Present.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *SH3:* Ship's Serviceman Third Class *(SHT3,* Tailor; *SHB3,* Barber; *SHL3,* Laundryman; *SHS3,* Clerk) (E-4). *SH2:* Ship's Serviceman Second Class (E-5). *SH1:* Ship's Serviceman First Class (E-6). *SHC:* Chief Ship's Serviceman (E-7). *SHCS:* Senior Chief Ship's Serviceman (E-8). *SHCM:* Master Chief Ship's Serviceman (E-9).

Description

Summary: Able to operate barber shop, tailor shop, ship's store, laundry, dry-cleaning plant, retail store, soda fountain, and commissary store; able to operate and maintain vending machines and cash register; performs clerical and stock control functions. NOTE: Ship's Servicemen Third Class (SH3) specialize as tailors, barbers, laundrymen/dry cleaners, or store clerks. *SHT3:* Serves as tailor; operates and adjusts sewing machines; sews, performs alterations and minor repair work on garments; presses garments on mechanical steam and electric presses; installs zippers, buttons, and makes buttonholes; attaches service ribbons and badges with even stitches; sets up accounts for retail clothing, receipts, and expenditures; inventories stock; receives tags and logs items for processing. *SHB3:* Serves as barber; cuts hair; schedules appointments; maintains acceptable sanitary and health standards in barber shop; has knowledge of basic first aid; maintains shop equipment; knows medical terminology for hair and scalp diseases and sources of infection. *SHL3:* Serves as laundryman; operates and adjusts all laundry and dry cleaning equipment; has knowledge of safety precautions, operating temperatures, and pressures of laundry equipment; removes stains; has knowledge of washing colored clothing, starching garments, using detergents, soaps, and bleaches; uses flatwork ironer and air-operated presser; has knowledge of water-pollution control; issues and records laundry markings and proper packing for laundry items; schedules laundry and dry-cleaning operations; processes claims for loss of or damage to garments; accounts for receipts and expenditures. *SHS3:* Serves as store clerk; performs shipboard and shoreside supply functions; conducts inventories, orders stock, computes standard markups; uses all memoranda, forms, and vouchers used by the Navy supply corps. *SH2:* Able to perform the duties of SH3 (tailor, barber, laundryman, or clerk); able to supervise the laundry, barber shop, or tailor shop; assists superiors on smaller ships without a supply corps officer. *SH1:* Able to perform the duties required for SH2; able to function as supply officer on small ships. *SHC:* Able to perform the duties required for SH1; supervises and assigns duties; orders materials, prepares work requests, and audits maintenance program; serves as a counselor on reenlistment and advancement opportunities; plans physical layouts for sales and service activities; investigates and resolves customer complaints. *SHCS:* Able to perform the duties required for SHC; supervises entire supply department; serves as liaison with other departments and supply corps; organizes and schedules training programs, evaluates effectiveness, and initiates improvements. *SHCM:* Able to perform the duties required for SHCS; serves as the administrator of an entire supply department; supervises up to 70 personnel; conducts task analysis; approves procedural changes and modifications; reviews personnel evaluations and performance standards; develops operating budgets and monitors expenditures.

Recommendation, SHT3 (Tailor)

In the vocational certificate category, 2 semester hours in record keeping, 3 in beginning tailoring, 3 in applied tailoring techniques (alterations, repairs, buttonholing, braiding), and 3 in small business management for tailors, for a total of 11 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in beginning tailoring, 3 in applied tailoring techniques (alterations, repairs, buttonholing, braiding), 3 in small business management for tailors, and 3 in home economics in tailoring techniques, for a total of 14 semester hours (12/76).

Recommendation, SHB3 (Barber)

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 2 in small business management for barbers, 3 in barber science (equipment and nomenclature), 3 in barber science II (sanitation, dermatology, hygiene), and 7 in applied barber shop techniques (haircuts, trims), for a total of 17 semester hours (12/76).

Recommendation, SHL3 (Laundryman)

In the vocational certificate category, 2 semester hours in record keeping, 2 in treatment of fabrics (stain removing, spotting, solutions), 3 in laundry equipment operational techniques and repair, 3 in laundry management, and 3 in dry cleaning and pressing, for a total of 13 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping and 1 in environmental control (water) (12/76).

Recommendation, SHS3 (Clerk)

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping and 3 in inventory control (12/76).

Recommendation, SH2

In the vocational certificate category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk). In the lower-division baccalaureate/associate degree category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus up to 2 semester hours in personnel supervision on the basis of institutional evaluation (12/76).

Recommendation, SH1

In the vocational certificate category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk). In the lower-division baccalaureate/associate degree category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 3 semester hours in personnel supervision (12/76).

Recommendation, SHC

In the vocational certificate category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping and 3 in retail sales management. In the lower-division baccalaureate/associate degree category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping, 3 in retail sales management, 3 in personnel supervision, 3 for field experience in management (12/76).

Recommendation, SHCS

In the vocational certificate category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping and 3 in retail sales management. In the lower-division baccalaureate/associate degree category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk, plus 1 additional semester hour in record keeping, 3 in retail sales management, 3 in personnel supervision, 3 in management electives, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, and additional credit in human relations on the basis of institutional evaluation (12/76).

Recommendation, SHCM

In the vocational certificate category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping and 3 in retail sales management. In the lower-division baccalaureate/associate degree category, use the appropriate recommendation for SH3 (tailor, barber, laundryman, or clerk), plus 1 additional semester hour in record keeping, 6 in retail sales management, 3 in personnel supervision, 3 in management electives, and 3 for field experience in management. In the upper-division baccalaureate category, 3 semester hours in management problems, 3 for a practicum in management, and 3 in personnel management, and additional credit in human relations on the basis of institutional evaluation, for a minimum total of 9 semester hours (12/76).

NER-SK-001

STOREKEEPER

SK3
SK2
SK1
SKC
SKCS
SKCM

Exhibit Dates: 6/72–Present.

Occupational Field: 16 (Logistics).

Career Pattern

SN: Seaman (E-3). *SK3:* Storekeeper Third Class (E-4). *SK2:* Storekeeper Second Class (E-5). *SK1:* Storekeeper First Class (E-6). *SKC:* Chief Storekeeper (E-7). *SKCS:* Senior Chief Storekeeper (E-8). *SKCM:* Master Chief Storekeeper (E-9).

Description

Summary: Orders, receives, inspects, stores, preserves, packages, ships, and issues materials and cargo; prepares and maintains forms, records, correspondence, reports, and files. *SK3:* Knows the basic organization and functions of supply departments; is familiar with the purpose and use of major components of automated data processing (ADP) equipment and knows common terms used in ADP; operates office machines; types (at 20 words per minute), routes, and files forms and messages; maintains files, the requisition log, and budget records; prepares supply-related documents; identifies, receives, stows, and issues materials and stock items; prepares items for shipment; prepares shipment documents; inventories stocked material and installed equipment: operates material-handling equipment. *SK2:* Able to perform the duties required for SK3; establishes and maintains files; knows types, uses, and purposes of appropriations and funds; reconciles financial listings; prepares budget reports; requisitions repair parts, supplies, forms, and publications; supervises working parties handling stores; controls inventory; maintains and interprets reports and records; prepares open purchase documents; applies regulations to maintain the security of materials of documents. *SK1:* Able to perform the duties required for SK2; applies automated supply procedures; prepares correspondence and messages; instructs others in the use of publications and directives; supervises the maintenance of publications; reviews requisitions for non-standard materials; establishes and maintains a technical library; implements and supervises target budgeting procedures; processes bills for payment; identifies sources and uses of funds; effects supply issuance; carries out Navy supply procedures; supervises regular and special inventories. *SKC:* Able to perform the duties required for SK1; monitors outgoing correspondence, shipboard ADP, and management of fleet-controlled material; supervises the receipt of material and administrative storekeeper functions; organizes and supervises internal procedures for inventory management; prepares replenishment data for equipage, repair parts, and consumables and estimates requirements which would exist for voyages of various lengths and under various climatic conditions. *SKCS:* Able to perform the duties required for SKC; analyzes supply reports and evaluates problem areas; supervises on-the-job training program; utilizes ADP in supply operations; monitors and directs supply functions, including those related to security, financial control, and logistics; prepares local directives and instructions. *SKCM:* Able to perform the duties required for SKCS; plans, organizes, implements, and controls activities in compliance with policy statements, operation orders, and directives; forecasts future requirements; plans and initiates actions to satisfy requirements; establishes goals and priorities; reviews and evaluates personnel, equipment, and material requirements; develops operating budgets and monitors expenditures; plans and develops operational requirements for service markets, supply operations assistance program, sea markets, and storage warehouses.

Recommendation, SK3

In the vocational certificate category, 2 semester hours in office machines, 1 in material handling, and 1 in general clerical procedures, for a total of 4 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in office machines and 1 in general clerical procedures (12/76).

Recommendation, SK2

In the vocational certificate category, 3 semester hours in inventory control, 2 in office machines, 2 in record keeping, and 1 in general clerical procedures, for a total of 8 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control, 2 in office machines, 2 in record keeping, 1 in general clerical procedures, and 1 in personnel supervision, for a total of 9 semester hours (12/76).

Recommendation, SK1

In the vocational certificate category, 3 semester hours in inventory control, 2 in office machines, 2 in record keeping, and 2 in general clerical procedures, for a total of 9 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control, 2 in office machines, 2 in record keeping, 2 in general clerical procedures, 1 in automated record keeping. and 1 in personnel supervision, for a total of 11 semester hours (12/76).

Recommendation, SKC

In the vocational certificate category, the recommendation is the same as that for SK1. In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control, 3 in communication skills (written), 2 in office machines, 2 in record keeping, 2 in general clerical procedures, 2 in personnel supervision, and 1 in automated record keeping, and additional credit for field experience in management on the basis of institutional evaluation, for a minimum total of 15 semester hours (12/76).

Recommendation, SKCS

In the vocational certificate category, the recommendation is the same as that for SK1. In the lower-division baccalaureate/associate degree category, 3 semester hours in inventory control, 3 in communication skills (written), 3 in general clerical procedures, 3 in management electives, 2 in office machines, 2 in personnel supervision, 2 in record keeping, and 1 in automated record keeping, and additional credit for field experience in management on the basis of institutional evaluation, for a minimum total of 19 semester hours. In the upper-division baccalaureate category, credit for a practicum in management and in human relations on the basis of institutional evaluation (12/76).

Recommendation, SKCM

In the vocational certificate category, the recommendation is the same as that for SK1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SKCS. In the upper-division baccalaureate category, 3 semester hours in supply management and 3 in management problems, and additional credit for a practicum in management and in human relations on the basis of institutional evaluation (12/76).

NER-SM-001

SIGNALMAN

SM3
SM2
SM1
SMC
SMCS
SMCM

Exhibit Dates: 6/71–Present.

Occupational Field: 1 (General Seamanship).

Career Pattern

SN: Seaman (E-3). *SM3:* Signalman Third Class (E-4). *SM2:* Signalman Second Class (E-5). *SM1:* Signalman First Class (E-6). *SMC:* Chief Signalman (E-7). *SMCS:* Senior Chief Signalman (E-8). *SMCM:* Master Chief Signalman (E-9).

Description

Summary: Sends and receives messages by flashing light, semaphore, and flaghoist; stands watch on the signal bridge; performs lookout duties; encodes and decodes messages; maintains visual signal equipment; recognizes visual aids to navigation, such as beacons and buoys; takes bearings; serves as navigator's assistant. *SM3:* Performs basic seamanship duties; stands watch as a signal operator under way and in port; inventories equipment, performs routine maintenance on optical equipment; uses and recognizes flag, lights, international distress, emergency, and storm warning signals; transmits and receives code groups by flashing lights at 8 words per minute (WPM) and semaphore at 10 WPM; selects and displays flags and pennants; receives, sends, and handles routine messages according to precedence, performs duties of a signalman as member of a boatcrew; operates infrared and flashing light equipment; performs routine maintenance of visual signaling equipment. *SM2:* Able to perform the duties required for SM3; maintains visual signal log and visual traffic files; locates ships in local formation using formation diagram; corrects and maintains signal publications; completes planned maintenance reports; orders repair parts and special tools required for installed equipment maintenance; constructs and uses all visual call signs, international call signs, and task organization call for ship and commands; encodes and decodes naval or international signals contained in effective visual communications publications; carries out disposal and destruction of classified communications materials; ensures that correct methods of transmissions or transportation of classified information and material are followed; transmits and receives code groups by flashing light of 8 WPM, plain language message by flashing light at 10 WPM, and by semaphore at 15 WPM. *SM1:* Able to perform the duties required for SM2; prepares requests for requisition of equipment; prepares visual equipment communications standing orders for signalmen; instructs signal personnel in identification of ships and aircraft, visual communication procedures, naval communications rules, and recognition procedures and codes; prepares weekly schedules of preventive maintenance; maintains inventory files for equipment and consumable goods; administers security classification policies; authenticates authority of the releaser of visual messages; transmits and receives code group by flashing light of 10 WPM, plain language messages by flashing lights at 12 WPM, and by semaphore at 20 WPM. *SMC:* Able to perform the duties required for SM1; prepares quarterly schedules of preventive maintenance; posts changes to ship equipment configuration accounting system; administers command security education programs; performs duties of tactical comminications watch officer; supervises visual communications activities; supervises signal bridge personnel. *SMCS:* Able to perform the duties required for SMC; interprets organization and functions of the communications section; provides information and advice on utilization, capability, and reliability of operations in own area of responsibility; prepares correspondence; prepares local directives and instruction concerning organization objectives and improving operations; evaluates and assigns personnel to assure maximum utilization; observes and evaluates visual exercises and drills; organizes and implements communications section of operation orders and plans; organizes, schedules, and evaluates visual communications training programs; administers long-range planned maintenance programs in accordance with Navy maintenance and material management system; administers command security program. *SMCM:* Able to perform the duties required for SMCS; plans, organizes, and implements activities in compliance with policy statements, operation orders, and directives; forecasts future requirements and plans and initiates action to satisfy requirements in area of responsibility; establishes goals, objectives, and priorities in area of responsibility; reviews personnel, equipment, and material requirements; develops operating budgets and monitors expenditures.

Recommendation, SM3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship (12/76).

Recommendation, SM2 and SM1

In the vocational certificate category, 3 semester hours in seamanship and 2 in record keeping; *if shore duty assignment was in the area of security,* additional credit in law enforcement or police science on the basis of institutional evaluation. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 2 in record keeping, and 2 in personnel supervision for a minimum total of 7 semester hours; *if shore duty assignment was in the area of security,* additional credit in law enforcement or police science on the basis of institutional evaluation. NOTE: Because of the shortage of signalmen, they frequently are assigned to duty positions that are normally assigned to persons in a higher pay grade. Therefore, it is recommended that the duty assignment be considered when decisions regarding the award of credit are made (12/76).

Recommendation, SMC

In the vocational certificate category, the recommendation is the same as that for SM2. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 for field experience in management, 2 in record keeping, and 2 in personnel supervision, for a minimum total of 10 semester hours; *if shore duty assignment was in the area of security,* additional credit in law enforcement or police science on the basis of institutional evaluation (12/76).

Recommendation, SMCS

In the vocational certificate category, the recommendation is the same as that for SM2. In the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, 3 for field experience in management, 3 in management electives, 2 in record keeping, and 2 in personnel supervision, for a minimum total of 13 semester hours; *if shore duty assignment was in the area of security,* additional credit in law enforcement or police science on the basis of institutional evaluation. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, and additional credit in human relations on the basis of institutional evaluation (12/76).

Recommendation, SMCM

In the vocational certificate category, the recommendation is the same as that for SM2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for SMCS. In the upper-division baccalaureate category, 3 semester hours for a practicum in management, 3 in management problems, 2 in personnel management, and additional credit in human relations on the basis of institutional evaluation, for a minimum total of 8 semester hours (12/76).

NER-SN-001

SEAMAN

SN

Exhibit Dates: 6/71–Present.

Career Pattern

Seaman (SN) is a general rate (Naval apprenticeship) for persons at pay grades E–1 (recruit), E–2 (seaman apprentice), and E–3 (seaman). At pay grade E–4 (petty officer third class), the person may enter any one of the following ratings: Boatswain's Mate (BM), Cryptologic Technician (CT), Data Processing Technician (DP), Data Systems Technician (DS), Disbursing Clerk (DK), Electronics Technician (ETN or ETR), Electronics Warfare Technician (EW), Fire Control Technician (FTB, FTG, or FTM), Gunner's Mate (GMG or GMM), Gunner's Mate Technician (GMT), Illustrator Draftsman (DM), Instrumentman (IM), Intelligence Specialist (IS), Journalist (JO), Lithographer (LI), Mess Management Specialist (MS), Mineman (MN), Missile Technician (MT), Musician (MU), Ocean System Technician (OT), Operations Specialist (OS), Opticalman (OM), Personnelman (PN), Postal Clerk (PC), Quartermaster (QM), Radioman (RM), Ship's Serviceman (SH), Signalman (SM), Sonar Technician (STG or STS), Storekeeper (SK), Torpedoman's Mate (TM), or Yeoman (YM).

Description

Performs all basic seamanship functions aboard ship that involve line or wire, including knot tying, whipping and seizing, and rigging used to secure the ship to a pier, moor, or anchor; is able to identify functions of navigation and shipboard equipment, including fixed or portable items and power or non-powered items; lowers, raises, and launches life saving equipment; handles small boats; navigates by using several different types of compasses; keeps records by degrees or points; knows navigational aids, Nautical Rules of the Road, and the buoys of inland waters of the U.S.; knows the nomenclature of decks, superstructures, and parts of the hull; knows the purpose and limitations of first aid and the first aid treatments for electrical shock, simple and compound fractures, heat exhaustion, heat stroke, and burns; must be qualified as a Swimmer Fourth Class, requiring floating for a minimum of five minutes, preparing and using clothing and buoyant objects for staying afloat, and swimming through oil, flames, and debris; knows how to determine the classes of fire and how to extinguish them; knows how to couple, uncouple, and stow fire hoses and how to use carbon dioxide, dry chemical, and water-portable fire extinguishers; knows the function of the typical fire main system, fixed carbon dioxide system, water washdown system, and magazine sprinkling system; knows the difference between flooding and progressive flooding and the dangers involved.

Recommendation

In the vocational certificate category, or in the lower-division baccalaureate/associate degree category, 3 semester hours in seamanship, and additional credit in first aid and fire science on the basis of institutional evaluation; *if the duty assignment was boat coxswain,* 3 additional semester hours in small boat operation; *if qualified as Swimmer First Class,* 1 semester hour in swimming and additional credit in swimming on the basis of institutional evaluation. (12/76). NOTE: *Credit for Seaman (SN) should be granted only after pay grade E–3 has been achieved.*

NER-ST-001

SONAR TECHNICIAN, MASTER CHIEF

STCM

Exhibit Dates: 7/76–Present.

Occupational Field: 10 (Sensor Operations).

Career Pattern

May progress to STCM, Master Chief Sonar Techician (E–9), from *either* STGCS, Senior Chief Sonar Technician, Surface (E–8), *or* STSCS, Senior Chief Sonar Technician, Submarine (E–8).

Description

Able to perform the duties required for STGCS (Senior Chief Sonar Technician, Surface), or STSCS (Senior Chief Sonar Technician, Submarine); serves as technical advisor for operations, maintenance, and training; reviews personnel, equipment, and material requirements, and forecasts future requirements; plans, organizes, implements, and controls activities; develops operating budgets and monitors expenditures.

Recommendation

In the vocational certificate category, use the recommendation for STG2 (Sonar Technician, Surface, Second Class) in exhibit NER-STG-001, or STS2 (Sonar Technician, Submarine, Second Class) in exhibit NER-STS-001, as appropriate. In the lower-division baccalaureate/associate degree category, use the recommendation for STGCS (Senior Chief Sonar Technician, Surface) in exhibit NER-STG-001, or STSCS (Senior Chief Sonar Technician, Submarine) in exhibit NER-STS-001, as appropriate. In the upper-division baccalaureate category, 6 semester hours for field experience in management and 3 in management problems (12/78).

NER-STG-001

SONAR TECHNICIAN, SURFACE

STG3
STG2
STG1
STGC
STGCS

Exhibit Dates: 7/76-Present.

Occupational Field: 10 (Sensor Operations).

Career Pattern

SN: Seaman (E-3). *STG3:* Sonar Technician, Surface, Third Class (E-4). *STG2:* Sonar Technician, Surface, Second Class (E-5). *STG1:* Sonar Technician, Surface, First Class (E-6). *STGC:* Chief Sonar Technician, Surface (E-7). *STGCS:* Senior Chief Sonar Technician, Surface (E-8). *STCM:* Master Chief Sonar Technician (E-9).

Description

Summary: Operates, troubleshoots, repairs, and performs maintenance on shipboard sonar, oceanographic, and underwater antisubmarine weapons control systems. *STG3:* Performs operational tests and makes external adjustments on equipment; uses schematic and wiring/circuitry diagrams; operates sonar equipment to detect submarines and other underwater objects; operates a bathythermograph to obtain water temperature versus depth; prepares and interprets sonar messages; completes maintenance data forms. *STG2:* Able to perform the duties required for STG3; performs preventive maintenance on sonar equipment; tests and repairs or replaces electrical/electronic components and parts; localizes equipment malfunctions to systems, subsystems, circuits, or parts; installs minor modifications to electronic sonar equipment; operates analog/digital sonar computer; inventories tools, portable test equipment, and installed equipment; completes maintenance reports. *STG1:* Able to perform the duties required for STG2; supervises maintenance and repair of sonar equipment; repairs and calibrates electronic test equipment; trains and supervises personnel in the operation of equipment; prepares weekly maintenance schedules. *STGC:* Able to perform the duties required for STG1; supervises training of personnel in operation, maintenance, and repair of equipment; administers a long-range maintenance program; prepares quarterly maintenance schedules. *STGCS:* Able to perform the duties required for STGC; organizes and schedules training programs; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence.

Recommendation, STG3

In the vocational category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in applied mathematics, and 2 in basic blueprint reading, for a total of 8 semester hours (12/78).

Recommendation, STG2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in applied physics, for a total of 14 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading, for a total of 12 semester hours (12/78).

Recommendation, STG1

In the vocational certificate category the recommendation is the same as that for STG2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in maintenance management, 2 in personnel supervision, and 3 in human relations, for a total of 19 semester hours (12/78).

Recommendation, STGC

In the vocational certificate category, the recommendation is the same as that for STG2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping, for a total of 22 semester hours (12/78).

Recommendation, STGCS

In the vocational certificate category, the recommendation is the same as that for STG2. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for STGC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

NER-STS-001

SONAR TECHNICIAN, SUBMARINE

STS3
STS2
STS1
STSC
STSCS

Exhibit Dates: 7/76-Present.

Occupational Field: 10 (Sensor Operations).

Career Pattern

SN: Seaman (E-3). *STS3:* Sonar Technician, Submarine Third Class (E-4). *STS2:* Sonar Technician, Submarine, Second Class (E-5). *STS1:* Sonar Technician, Submarine, First Class (E-6). *STSC:* Chief Sonar Technician, Submarine (E-7). *STSCS:* Senior Chief Sonar Technician, Submarine (E-8).

Description

Summary: Operates, troubleshoots, repairs, and performs maintenance on submarine sonar, oceanographic, and auxiliary sonar equipment; coordinates use of submarine sonar and underwater weapons control systems. *STS3:* Performs operational tests and makes external adjustments on equipment; uses schematic and wiring/circuitry diagrams; operates sonar equipment to detect submarines and other underwater objects; operates a bathythermograph to obtain water temperature versus depth; prepares and interprets sonar messages; completes maintenance data forms. *STS2:* Able to perform the duties required for STS3; performs preventive maintenance on sonar equipment; tests and repairs or replaces electrical/electronic components and parts; localizes equipment malfunctions to systems, subsystems, circuits, or parts; installs minor modifications to electronic sonar equipment; operates analog/digital sonar computer; inventories tools, portable test equipment, and installed equipment; completes maintenance reports. *STS1:* Able to perform the duties required for STS2; supervises maintenance and repair of sonar equipment; repairs and calibrates electronic test equipment; trains and supervises personnel in the operation of equipment; prepares weekly maintenance schedules. *STSC:* Able to perform the duties required for STS1; supervises training of personnel in operation, maintenance, and repair of equipment; administers a long-range maintenance program; prepares quarterly maintenance schedules. *STSCS:* Able to perform the duties required for STSC; organizes and schedules training programs; prepares directives and instructions for attaining organizational objectives; establishes and implements a program for interviewing, evaluating, and assigning personnel to assure maximum utilization; prepares correspondence.

Recommendation, STS3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity/electronics, 3 in applied mathematics, and 2 in basic blueprint reading, for a total of 8 semester hours (12/78).

Recommendation, STS2

In the vocational certificate category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, and 2 in applied physics, for a total of 14 semester hours. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, and 3 in basic blueprint reading, for a total of 12 semester hours (12/78).

Recommendation, STS1

In the vocational certificate category the recommendation is the same as that for STS2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity/electronics, 3 in applied mathematics, 3 in basic blueprint reading, 2 in maintenance management, 2 in personnel supervision, and 3 in human relations, for a total of 19 semester hours (12/78).

Recommendation, STSC

In the vocational certificate category, the recommendation is the same as that for STS2. In the lower-division baccalaureate/associate degree category, 6 semester hours in basic electricity, 3 in applied mathematics, 3 in basic blueprint reading, 3 in personnel supervision, 3 in maintenance management, 3 in human relations, and 1 in record keeping, for a total of 22 semester hours (12/78).

Recommendation, STSCS

In the vocational certificate category, the recommendation is the same as that for STS2. In the lower-divison baccalaureate/associate degree category, the recommendation is the same as that for STSC. In the upper-division baccalaureate category, 3 semester hours for field experience in management and 3 in management problems (12/78).

NER-SW-001

STEELWORKER

SW3
SW2
SW1
SWC
SWCS

Exhibit Dates: 6/71–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *SW3:* Steelworker Third Class (E-4). *SW2:* Steelworker Second Class (E-5). *SW1:* Steelworker First Class (E-6). *SWC:* Chief Steelworker (E-7). *SWCS:* Senior Chief Steelworker (E-8). *CUCM:* Master Chief Constructionman (E-9).

Description

Summary: Fabricates, assembles, erects, positions, and joins structural members and fabricated sections. *SW3:* Reads shop drawings and sketches; uses simple hoisting devices; cuts, forms, places, and ties reinforcing steel; works with erection crew as a connector of tagman; performs gas cutting, gas welding, and electric arc welding in all positions; identifies types and uses of electrodes, gas rods, and fluxes for welding, soldering, and brazing; identifies types of welded joints; identifies compressed gas cylinders; splices line and wire rope; computes safe working load of lines, wire rope, and block and tackle arrangements; erects common types of metal and swinging scaffolds; identifies types and shapes of structural and reinforcing steel; identifies types of pre-engineered buildings and structures; computes areas of polygons, circles, and cylinders; computes volume of prisms, pyramids, cones, spheres, and cylinders; fabricates elementary designs and shapes in sheet metal by using soldering, brazing and riveting. *SW2:* Able to perform the duties required for SW3; draws simple shop drawings and sketches; prepares requisitions; welds ferrous/nonferrous metals in all positions, using gas metal arc and gas tungsten arc welding procedures; applies methods of controlling metal expansion during welding operations; applies field straightening techniques to damage structural shapes; applies principles and methods of cutting, chamfering, and scarfing metal, using carbon-arc chamfer-type rod and air-arc processes; performs gas-welding and electric arc welding to build up and wearface metal parts; determines mechanical advantage of block and tackle arrangements; determines types and uses of drive pins, studs, and powder charges for powder-assisted or powder-actuated tools; performs layout and fabrication of simple steel structures for teams and crews; rigs wire rope, using poured sockets, clips, and related attachments; performs operator maintenance on powder-actuated (low and high velocity) stud guns and on diesel or gasoline driven air compressors. *SW1:* Able to perform the duties required for SW2; prepares as-built drawings; prepares work progress reports; provides material usage data; conducts training for teams and crews; designs and erects simple hoisting devices, such as "A" frames, ginpoles, tripods, and derricks; directs the movement of cranes and other hoisting devices in moving and positioning objects; directs crews involved in cutting and welding operations, directs teams or crews engaged in layout, cutting, bending, and placing reinforcing steel; directs teams and crews in erecting rigid frame and other pre-engineered buildings, structures, and airfield matting; directs teams and crews engaged in metal work and fabrication, knows the principles and assembly methods of the various pontoon systems; assigns daily work to teams and crews; prepares equipment, manpower, and material estimates from drawings and specifications; uses principles and techniques of Critical Path Method (CPM) scheduling; performs duties of shop planner or maintenance scheduler; performs construction and maintenance inspections; performs non-destructive metal tests. *SWC:* Able to perform the duties required for SW1; drafts letters and instructions; prepares reports; administers accident prevention program; makes personnel assignments; provides technical advice on plans and specifications and on construction and maintenance techniques; implements maintenance and cost control program, prepares and uses network analysis; prepares and maintains project progress charts; organizes and controls the site development of materials and equipment. *SWCS:* Able to perform the duties required for SWC; prepares correspondence and local directives and instructions for attaining organizational objectives and improving operations; provides information and advice on utilization, capabilities, reliability, and operations in own area of responsibility; implements a program for assigning and evaluation personnel; coordinates equipment assignment among various projects; administers construction force tool inventory and inspection program; prepares and maintains visual status boards; is capable of directing the operation and maintenance of all utilities in the Public Works Department; directs transportation and equipment services; establishes a maintenance and cost control program; coordinates and evaluates labor reporting, material and equipment usage, and maintains data and coordinates the preparation and submission of related reports; organizes, schedules, and evaluates training programs.

Recommendation, SW3

In the vocational certificate category, 9 semester hours in welding, 1 in rigging, and 1 in steel layout and fabrication, for a total of 11 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in welding and additional credit in welding on the basis of institutional evaluation (1/77).

Recommendation, SW2

In the vocational certificate category, 15 semester hours in welding, 2 in rigging, and 2 in steel layout and fabrication, for a total of 19 semester hours. In the lower-division baccalaureate/associate degree category, 5 semester hours in welding and 1 in steel layout and fabrication, and additional credit in welding on the basis of institutional evaluation (1/77).

Recommendation, SW1

In the vocational certificate category, 15 semester hours in welding, 6 in advanced welding, 3 in rigging, 3 in technical mathematics, and 3 in steel layout and fabrication, for a total of 30 semester hours. In the lower-division baccalaureate/associate degree category, 7 semester hours in welding, 2 in steel layout and fabrication, and 2 in personnel supervision, and additional credit in welding on the basis of institutional evaluation, for a minimum total of 11 semester hours (1/77).

Recommendation, SWC

In the vocational certificate category, the recommendation is the same as that for SW1. In the lower-division baccalaureate/associate degree category, 7 semester hours in welding, 3 in personnel supervision, 3 in industrial technology, 2 in steel layout and fabrication, and 1 in technical writing, and additional credit in welding on the basis of institutional evaluation, for a minimum total of 16 semester hours (1/77).

Recommendation, SWCS

In the vocational certificate category, the recommendation is the same as that for SW1. In the lower-division baccalaureate/associate degree category, 7 semester hours in welding, 3 in personnel supervision, 3 in records administration, 3 in technical writing, 3 in industrial technology, and 2 in steel layout and fabrication, and additional credit in welding on the basis of institutional evaluation, for a minimum total of 21 semester hours. In the upper division baccalaureate category, 3 semester hours for a practicum in management, 3 in construction management, and 3 in human relations, for a total of 9 semester hours (1/77).

NER-TD-001

TRADEVMAN

TD3
TD2
TD1
TDC
TDCS
TDCM

Exhibit Dates: 6/71–Present.

Occupational Field: 11 (Weapons System Support)

Career Pattern

AN: Airman (E-3). *TD3:* Tradevman Third Class (E-4). *TD2:* Tradevman Second Class (E-5). *TD1:* Tradevman First Class (E-6). *TDC:* Chief Tradevman (E-7). *TDCS:* Senior Chief Tradevman (E-8). *TDCM:* Master Chief Tradevman (E-9).

Description

Summary: Operates, maintains, and installs training equipment; supervises maintenance; uses equipment in training programs; plans and develops training programs and training aids. *TD3:* Performs maintenance on electronic, hydraulic, and electrical training equipment; prepares computers for operation; records information on training devices; performs electromechanical maintenance; operates and repairs audio-visual training equipment and other training devices. *TD2:* Able to perform the duties required for TD3; analyzes and repairs electronic and hydraulic systems of training devices; operates and maintains sensor equipment; repairs analog computers; prepares computer program tapes and interprets print-outs; organizes and maintains technical files; troubleshoots and maintains servo-systems used in training devices; locates and corrects defects in mechanical computing elements. *TD1:* Able to perform the duties required for TD2; analyzes and corrects computer system malfunctions; supervises tests and measurements on training devices; prepares maintenance troubleshooting programs for ADP/EDP operations; verifies computer tapes; prepares drawings from mechanical, electrical, and electronic schematics; inspects maintenance work; prepares maintenance schedules; orders technical publications or manuals; orders parts, tools, equipment and material; maintains and repairs air-conditioning systems. *TDC:* Able to perform the duties required for TD1; assists in selection and development of training aids; coordinates scheduling of training devices; supervises training programs; assigns job priorities; analyzes discrepancy trends; directs and monitors installation, operation, and maintenance of assigned equipment; schedules preventive maintenance; develops and directs closed-circuit television programs. *TDCS:* Able to perform the duties required for TDC; provides utilization information; prepares correspondence and local directives; establishes a program for interviewing, evaluating, and assigning personnel; organizes, schedules, and evaluates training programs; evaluates requirements and administers a long-range planned maintenance program. *TDCM:* Able to perform the duties required for TDCS; plans, organizes, and controls activities; forecasts future requirements and plans for personnel, equipment, and materials; establishes goals and priorities; develops operating budgets and monitors expenditures.

Recommendation, TD3 and TD2

In the vocational certificate category, 2 semester hours in blueprint reading and schematics, 3 in basic electricity, 3 in basic electronics, 3 in technical mathematics, and 6 in applied physics, for a total of 17 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in basic electricity, 3 in basic electronics, 3 in basic mathematics, and 6 in applied physics, for a total of 15 semester hours (2/77).

Recommendation, TD1

In the vocational certificate category, 2 semester hours in blueprint reading and schematics, 2 in record keeping, 3 in basic electricity, 3 in basic electronics, 3 in technical mathematics, 6 in applied physics, and additional credit in air conditioning and refrigeration on the basis of institutional evaluation, for a minimum total of 19 semester hours. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 2 in personnel supervision, 3 in basic electricity, 3 in basic electronics, 3 in basic mathematics, and 6 in applied physics, for a total of 19 semester hours. In the upper-division baccalaureate category, 3 semester hours in audio-visual education (2/77).

Recommendation, TDC

In the vocational certificate category, the recommendation is the same as that for TD1. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in personnel supervision, 3 in basic electricity, 3 in basic electronics, 3 in basic mathematics, and 6 in applied physics, for a total of 20 semester hours. In the upper-division baccalaureate category, 3 semester hours in audio-visual education and 3 in instructional techniques and materials (2/77).

Recommendation, TDCS

In the vocational certificate category, the recommendation is the same as that for TD1. In the lower-division baccalaureate/associate degree category, 2 semester hours in record keeping, 3 in personnel supervision, 3 for management electives, 3 in basic electricity, 3 in basic electronics, 3 in basic mathematics, and 6 in applied physics, for a total of 23 semester hours. In the upper-division baccalaureate category, 3 semester hours in audio-visual education, 3 in instructional techniques and materials, and 3 for field experience in management, for a total of 9 semester hours (2/77).

Recommendation, TDCM

In the vocational certificate category, the recommendation is the same as that for TD1. In the lower-division baccalaureate/associate degree category, the recommendation is the same as that for TDCS. In the upper-division baccalaureate category, 3 semester hours in audio-visual education, 3 in instructional techniques and materials, 3 in management problems, and 3 for field experience in management, and additional credit in human relations, in personnel management, and for a practicum in management on the basis of institutional evaluation, for a minimum total of 12 semester hours (2/77).

NER-TM-001

TORPEDOMAN'S MATE

TM3
TM2
TM1
TMC
TMCS
TMCM

Exhibit Dates: Pending evaluation.

NER-UT-001

UTILITIESMAN

UT3
UT2
UT1
UTC
UTCS
UTCM

Exhibit Dates: 6/72–Present.

Occupational Field: 13 (Construction).

Career Pattern

CN: Constructionman (E-3). *UT3:* Utilitiesman Third Class (E-4). *UT2:* Utilitiesman Second Class (E-5). *UT1:* Utilitiesman First Class (E-6). *UTC:* Chief Utilitiesman (E-7). *UTCS:* Senior Chief Utilitiesman (E-8). *UTCM:* Master Chief Utilitiesman (E-9).

Description

Summary: Plans, supervises, and performs tasks involved in the installation, maintenance, and repair of plumbing, heating, steam, compressed-air, fuel storage, and distribution systems, water treatment and distribution systems, air-conditioning and refrigeration equipment, and sewage collection and disposal facilities. *UT3:* Installs immersion can heaters and space heaters, fuel lines, and piping and pressure vessel insulation materials; performs pre-start checks, and maintains and operates assigned vehicles; maintains boilers, water plants, air-conditioning and refrigeration equipment, and pumps and air compressors; performs minor repairs on immersion can heaters and space heaters; solders/brazes soft and hard drawn copper tubing and fittings; measures, cuts, and threads galvanized steel pipe, cast iron soil pipe, black iron gas pipe, cast iron water pipe, clay and concrete pipe, cement-asbestos pipe, and plastic pipe; identifies color coding used on piping systems and compressed gas cylinders; cleans watersides and firesides of boilers; handles chemicals used in treating water and sewage. *UT2:* Able to perform the duties required for UT3; reads and works from drawings and specifications; prepares simple shop drawings and sketches; prepares time cards and material requisitions; installs water systems, packaged refrigeration and air-conditioning systems, and pressure, check, and shut-off valves; installs laundry equipment, heating systems, galley equipment, plumbing fixtures, water heaters, and sewage systems; performs water treatment and purification tests, maintains and repairs laundry equipment; tests, adjusts, and recalibrates gauges; repairs valves. *UT1:* Able to perform the duties required for UT2; prepares work progress and material usage reports; conducts personnel readiness interviews; implements training for team/crew members; constructs septic tanks, cess pools, and leaching fields; installs fire protection systems, advanced-base type boilers and pressure vessels, stationary refrigeration and air-conditioning systems, and compressed air systems; organizes work schedules; prepares estimates; perform inspections; tests boilers and pressure vessels; serves as supervisor for steam, sewage, and water plants. *UTC:* Able to perform the duties required for UT1; drafts letters and reports; administers safety program; assigns personnel based on readiness reports; supervises and coordinates all unit tasks; provides technical advice; implements maintenance and cost control program; organizes and controls the site deployment of materials and equipment. *UTCS:* Able to perform the duties required for UTC; provides information and advice on utilization, capabilities, reliablility, and operations in area of responsibility; prepares local directives and instructions for attaining objectives and improving operations; prepares correspondence; establishes and implements a program for interviewing, evaluating, and assigning personnel for maximum utilization; determines requirement for advanced base planning; coordinates equipment assignment; directs operation and maintenance of all utilities; establishes a maintenance/cost control program. *UTCM:* Able to perform the duties required for either UTCS or CECS (Senior Chief Construction Electrician); plans, organizes, implements, and controls work activities in compliance with policy statements and directives; establishes goals and sets priorities; reviews personnel, equipment, and material requirements; develops procedures for work improvement and simplification through organizational analysis; serves as a construction inspector; manages a contract inspection branch; implements energy conservation and pollution control programs; assists in the management and operation of a public works department; develops operating budgets and monitors expenditures; forecasts future personnel, equipment, and material requirements and takes action necessary to satisfy them; is responsible for the administration of a department or company.

Recommendation, UT3

In the vocational certificate category, 3 semester hours in introduction to construction, 3 in utilities maintenance, and 3 in plumbing, for a total of 9 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in utilities construction and maintenance (1/77).

Recommendation, UT2

In the vocational certificate category, 3 semester hours in introduction to construction, 3 in utilities maintenance, 3 in plumbing, 3 in utilities installation, and 2 in blueprint reading and sketching, for a total of 14 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in utilities construction and maintenance, 3 in applied science, and 2 in general plans and specifications, for a total of 8 semester hours (1/77).

Recommendation, UT1

In the vocational certificate category, 6 semester hours in utilities installation, 3 in introduction to construction, 3 in utilities maintenance, 3 in plumbing, and 2 for blueprint reading and sketching, for a total of 17 semester hours. In the lower-division baccalaureate/associate degree category, 4 semester hours in utilities construction and maintenance, 3 in applied science, 3 in utilities construction estimating, 3 in water and sewage treatment systems, 2 in general plans and specifications, and 2 in personnel supervision, for a total of 17 semester hours (1/71).

Recommendation, UTC

In the vocational certificate category, the recommendation is the same as that for UT1. In the lower-division baccalaureate/associate degree category, 4 semester hours in utilities construction and maintenance, 3 in applied science, 3 in utilities construction estimating, 3 in water and sewage treatment systems, 3 in personnel supervision, 2 in general plans and specifications, 2 in shop management, and 1 in safety management, for a total of 21 semester hours (1/77).

Recommendation, UTCS

In the vocational certificate category, the recommendation is the same as that for UT1. In the lower-division baccalaureate/associate degree category, 4 semester hours in utilities construction and maintenance, 3 in applied science, 3 in utilities construction estimating, 3 in water and sewage treatment systems, 3 in personnel supervision, 2 in introduction to management, 2 in general plans and specifications, 2 in shop management, and 1 in safety management, for a total of 23 semester hours. In the upper division baccalaureate category, 3 semester hours for a practicum in management and 3 in human relations (1/77).

Recommendation, UTCM

In the vocational certificate category, use the recommendation for either UT1 or CE1 (Construction Electrician First Class) in exhibit NER-CE-001, as appropriate. In the lower-division baccalaureate/associate degree category, 3 semester hours in principles of administration, 3 in construction contracts and agreements, and 3 in government budgeting, for a total of 9 semester hours; *add either* the 23 semester hours for UTCS, for a total of 32 semester hours, or the 17 semester hours for CECS (Senior Chief Construction Electrician) in exhibit NER-CE-001, for a total of 26 semester hours, as appropriate. In the upper division baccalaureate category, 6 semester hours for a practicum in management, 3 in human relations, 3 in management problems, and 3 in forecasting, for a total of 15 semester hours (1/77).

NER-YN-001

Yeoman

YN3
YN2
YN1
YNC
YNCS
YNCM

Exhibit Dates: 6/72–Present

Occupational Field: 15 (Administration).

Career Pattern

SN: Seaman (E-3). *YN3:* Yeoman Third Class (E-4). *YN2:* Yeoman Second Class (E-5). *YN1:* Yeoman First Class (E-6). *YNC:* Chief Yeoman (E-7). *YNCS:* Senior Chief Yeoman (E-8). *YNCM:* Master Chief Yeoman (E-9).

Description

Summary: Performs general office clerical duties, including typewriting, office machine operations, office communications, and filing and records maintenance. *YN3:* Maintains files; operates duplicating, adding, calculating, and copying machines; types correspondence, reports, and other communications from rough draft (a straight-copy typing rate of at least 30 words per minute is required). *YN2:* Able to perform the duties required for YN3; organizes and monitors filing and records maintenance, retention, and disposal; maintains officer personnel records; routes correspondence; types records, correspondence, and reports (a straight-copy typing rate of at least 40 words per minute is required); sends, receives, and accounts for official and registered mail. *YN1:* Able to perform the duties required for YN2; drafts correspondence, instructions, and notices (a straight-copy typing rate of at least 50 words per minute is required); verifies accuracy of job orders and work requests; assists in the supervision of clerical functions. *YNC:* Able to perform the duties required for YN1; maintains classified materials control system; verifies accuracy of official correspondence and reports; monitors submission and maintenance of officer fitness reports; supervises and directs clerical functions. *YNCS:* Able to perform the duties required for YNC; interviews, assigns, supervises, and evaluates office personnel; recommends office procedures improvements; procures and allocates office materials and equipment; supervises and controls the security of sensitive records; trains office personnel; functions as office supervisor. *YNCM:* Able to perform the duties required for YNCS; establishes goals, objectives, and priorities in the administration of the office function; reviews and makes recommendations concerning office personnel, equipment, and supply requirements, develops operating budget for the office and monitors office expenditures.

Recommendation, YN3

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 2 semester hours in typing, 1 in filing and records management, 1 in general clerical procedures, and 1 in office machines, for a total of 5 semester hours (12/76).

Recommendation, YN2

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 2 in filing and records management, 2 in general clerical procedures, and 1 in office machines, for a total of 8 semester hours (12/76).

Recommendation, YN1

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 2 in filing and records management, 2 in general clerical procedures, 2 in communication skills (written), and 1 in office machines, and additional credit in typing on the basis of institutional evaluation, for a minimum total of 10 semester hours (12/76).

Recommendation, YNC

In the vocational certificate category, 3 semester hours in typing, 3 in general clerical procedures, 3 in communication skills (written), 2 in filing and records management, 1 in office machines, and 1 in office management, and additional credit in typing on the basis of institutional evaluation, for a minimum total of 13 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in general clerical procedures, 3 in communication skills (written), 2 in filing and records management, 1 in personnel supervision, 1 in office machines, and 1 in office management, and additional credit for field experience in management and in typing on the basis of institutional evaluation, for a minimum total of 14 semester hours (12/76).

Recommendation, YNCS

In the vocational certificate category, 3 semester hours in typing, 3 in general clerical procedures, 3 in communication skills (written), 3 in office management, 3 in administration electives, 2 in filing and records management, and 1 in office machines, and additional credit in typing on the basis of institutional evaluation, for a minimum total of 18 semester hours. In the lower-division baccalaureate/associate degree category, 3 semester hours in typing, 3 in general clerical procedures, 3 in communication skills (written), 3 in office management, 3 in management electives, 3 in personnel supervision, 2 in filing and records management, and 1 in office machines, and additional credit for field experience in management and in typing on the basis of institutional evaluation, for a minimum total of 21 semester hours. In the upper-division baccalaureate category, credit in human relations and for a practicum in management on the basis of institutional evaluation (12/76).

Recommendation, YNCM

In the vocational certificate category or in the lower-division baccalaureate/associate degree category, the recommendation is the same as that for YNCS. In the upper-division baccalaureate category, 3 semester hours in management problems, and additional credit in human relations, in personnel management, and for a practicum in management on the basis of institutional evaluation (12/76).

[illegible]

DANTES Subject Standardized Tests (DSSTs)

The Defense Activity for Non-Traditional Education Support (DANTES) provides support to the voluntary education programs of all military services. DANTES was created in May 1974 after disestablishment of the United States Armed Forces Institute (USAFI). Policy control of DANTES rests with the Director of Defense Education in the Office of the Secretary of Defense; DANTES policy is administered by a Department of Defense policy council on which all military services are represented.

DANTES began offering Subject Standardized Tests when it was established in July 1974. Many of the tests were identical with those sponsored by the United States Armed Forces Institute (USAFI) prior to its disestablishment. Each test in this series is intended to reflect the knowledge and understanding normally associated with a term of study in a university, college, or technical school (i.e., postsecondary programs leading to a degree or certificate). The DSSTs are administered through military education and testing centers worldwide and are available to active military personnel only. Participation in the program is optional.

The DSSTs are a series of multiple-choice subject-matter examinations in college and technical subjects. DSSTs are essentially end-of-course achievement tests. Each DSST is based on several textbooks commonly used for a course of the same or similar title. Examinee scores are reported as percentiles (PR) for early DSST forms designed as SA or SB; scores are reported as standard scores (SS) (mean 50, standard deviation 10) for recent DSST forms designated SC and SD. Both score scales are based on test results for large standardization samples of students completing relevant courses.

DANTES regularly contracts with test development organizations to revise and update DSSTs and to produce additional new tests. Prior to their distribution, the tests are evaluated by panels of subject matter and technical experts assembled by the ACE Office on Educational Credit and Credentials (OECC) staff. As a matter of policy, the recommended amount and type of credit, minimum test score for which credit should be awarded and the length of initial Commission recommendation are based primarily on the suggestions of each faculty subject matter review panel. The recommended minimum test score for credit awards is established for each DSST at the level judged by faculty reviewers to represent the knowledge and understanding that would be clearly deserving of credit at most institutions offering comparable courses. (No actual data on grades are provided by the DSST test developer, so these score levels are based on the faculty reviewers' subjective judgments and on their inspection of the normative data provided.)

The ACE credit recommendations for DSSTs, as of the publication date of the *Guide*, are indicated below. Since recommendations for many new tests are anticipated and those for others will soon expire, readers are urged to contact OECC for supplementary recommendations on revised or newly developed DSSTs.

TEST	TITLE	CREDIT AMOUNT (SEM. HRS.)	MINIMUM SCORE	TAKEN ON OR BEFORE
SB404	Survey of English Literature	3B	20PR	12-31-79
SA408	Survey of American Literature I	3B	20PR	12-31-79
SA409	Survey of American Literature II	3B	20PR	12-31-79
SA424	Intermediate College Algebra	3B	20PR	12-31-79
SC424	Intermediate College Algebra	3B	50SS	12-31-84
SB425	College Algebra	3B	20PR	3-31-79
SB433	Basic Statistics	3B	20PR	12-31-80
SC433	Basic Statistics	3B	54SS	12-31-84
SA435	Plane Trigonometry	3B	20PR	12-31-79
SC435	Plane Trigonometry	3B	50SS	12-31-84
SA440	Calculus I	4B	20PR	12-31-79
SC440	Calculus I	4B	50SS	12-31-84
SA441	Calculus II	4B	20PR	12-31-80
SC441	Calculus II	4B	52SS	12-31-82

SA445	Differential Equations	3B	20PR	12-31-79
SC445	Differential Equations	3B	54SS	12-31-81
SA446	Linear Algebra	3B	20PR	12-31-80
SC446	Linear Algebra	3B	20PR	5-31-80
SB453	Principles of Economics I	3B	20PR	12-31-79
SC453	Principles of Economics I	3B	48SS	12-31-83
SB454	Principles of Economics II	3B	20PR	12-31-78
SB457	History of Western Civilization to 1500	3B	20PR	12-31-78
SB458	History of Western Civilization since 1500	3B	20PR	6-30-79
SA462	History of the American Negro	3B	20PR	12-31-80
SA467	History of Modern East Asia	3B	20PR	12-31-79
SA468	History of Southeast Asia	3B	20PR	12-31-79
SA471	History of Africa	3B	20PR	12-31-79
SA472	Problems of Contemporary Latin America	3B	20PR	2-28-77
SA481	Modern European Governments	3B	20PR	12-31-79
SA482	Modern Asian Governments	3B	20PR	12-31-79
SB488	Psychology of Adjustment	3B	20PR	12-31-80
SC488	Psychology of Adjustment	3B	53SS	12-31-84
SA491	Educational Psychology	3B	20PR	7-31-79
SC491	Educational Psychology	3B	56SS	12-31-82
SA494	General Anthropology	3B	20PR	12-31-78
SA497	Introduction to Law Enforcement	3B	20PR	12-31-78
SB498	Criminology	3B	20PR	12-31-80
SB500	Astronomy I	2B	20PR	12-31-80
SC500	Astronomy I	3B	48SS	12-31-83
SA505	General Geophysics	3B	20PR	12-31-80
SC505	General Geophysics	3B	51SS	12-31-83
SA510	Oceanography	3B	20PR	12-31-80
SB512	Principles of Physical Science I	3B	20PR	12-31-80
SC512	Principles of Physical Science I	3B	51SS	12-31-82
SA514	College Chemistry I	3T	20PR	3-31-79
SA515	College Chemistry II	3T	20PR	3-31-79
SB517	College Physics I	3B	20PR	12-31-80
SB518	College Physics II	3B	20PR	12-31-80
SA519	Geology I	3B	20PR	12-31-79
SC519	Geology I	3B	54SS	12-31-82
SA520	Geology II	3B	20PR	12-31-79
SA525	Principles of Accounting I	3B	20PR	12-31-80
SC525	Principles of Financial Accounting I	3B	50SS	12-31-84
SB533	Business Law I	3B	20PR	12-31-80
SC533	Business Law I	3B	53SS	12-31-86
SB534	Business Law II	3B	20PR	12-31-79
SA535	Introduction to Data Processing	2B	20PR	2-28-77
SA539	Principles of Management	3B	20PR	7-31-79
SC539	Introduction to Management	3B	54SS	12-31-83
SB543	Introduction to Business	3B	20PR	11-30-79
SC543	Introduction to Business	3B	48SS	12-31-84
SB544	Personnel Management	3B	20PR	3-31-79
SA546	Risk and Insurance	3B	20PR	12-31-80

SB547	Introduction to Real Estate	3B	20PR	3-31-79
SA548	Money and Banking	3B	20PR	12-31-78
SA549	Marketing	3B	20PR	7-31-79
SC549	Basic Marketing	3B	50SS	12-31-83
SA550	Climatology/Meteorology	3T/3B	20PR	12-31-80
SC550	Meteorology and Climatology	3B	55SS	12-31-89
SA560	Introduction to Education	3B	20PR	3-31-79
SA561	History and Philosophy of Education	3B	20PR	12-31-79
SA562	Principles of Guidance	3B	20PR	12-31-78
SA568	Introduction to Forestry	3B	20PR	12-31-80
SA577	Beginning French I	+	20PR	3-31-79
SA578	Beginning French II	++	20PR	3-31-79
SA579	Beginning German I	+	20PR	12-31-79
SC579	Beginning German I	4B	50SS	12-31-81
SA580	Beginning German II	++	20PR	3-31-79
SA583	Beginning Spanish I	+	20PR	12-31-78
SA584	Beginning Spanish II	++	20PR	12-31-78
SC584	Beginning Spanish II	3B	50SS	12-31-84
SA585	Beginning Italian I	+	20PR	12-31-80
SA586	Beginning Italian II	++	20PR	12-31-80
SA740	Auto Mechanics I	3T	20PR	12-31-78
SA741	Auto Mechanics II	3T	20PR	12-31-78
SA756	Introduction to Carpentry	3T	20PR	12-31-78
SB770	Basic Technical Drawing and Graphics	3T	20PR	12-31-79
SA781	Fundamentals of Electricity	2T	20PR	12-31-78
SA785	Electrical Measuring Instruments	3T	20PR	12-31-80
SC785	Electrical Measuring Instruments	2T	57SS	12-31-86
SA788	Introduction to Electronics I	3T	20PR	12-31-80
SC788	Introduction to Electronics I	3B	52SS	12-31-83
SA789	Introduction to Electronics II	3T	20PR	12-31-80
SC789	Introduction to Electronics II	3T	57SS	12-31-82
SB794	Introduction to Diesel Engines I	3T	20PR	3-31-79
SB795	Introduction to Diesel Engines II	3T	20PR	3-31-79
SA810	Technical Mathematics I	5T/3B	20PR	12-31-78
SA811	Technical Mathematics II	5T/3B	20PR	12-31-79
SA820	Technical Writing	3T/3B	20PR	12-31-79
SB885	Fundamentals of Radio	3T	20PR	12-31-79
SA890	Radio Servicing	4T/2B	20PR	12-31-78
SA891	Television Servicing	4T/2B	20PR	12-31-79
SA936	Introduction to Refrigeration	4T	20PR	12-31-79
SA960	Introduction to Quality Control	3B	20PR	2-28-77

NOTES

1. Recommendations for forms designated "SC" also apply to those designated "SD."
2. Scores on forms "SA" and "SB" are percentiles (PR); those on forms "SC" and "SD" are standard scores (SS) with mean 50 and standard deviation 10. All scores based on results for large samples of college students completing courses comparable to the tests.

3. "+" and "++" represent, respectively, the amounts of credit normally awarded for one- and two-semester introductory courses at the institution.

4. Abbreviations used for credit categories are:

"T": Technical Certificate Level: This category describes tests corresponding to course work normally found in certificate or diploma (nondegree) programs that are usually a year or less in length and designed to provide students with occupational skills.

"B": Baccalaureate/Associate Level: This category describes tests corresponding to course work normally found in the first two years of a baccalaureate program and in programs leading to the Associate in Arts, Associate in Science, or Associate in Applied Science degrees.

USING THESE RECOMMENDATIONS

The Amercian Council on Education recommends that credit for USAFI/DANTES courses and tests be granted only after successful completion is verified from official records.

Official records for service personnel and veterans completing USAFI (United States Armed Forces Institute) courses and tests prior to its disestablishment on June 30, 1974, can be obtained at no cost from DANTES Contractor Representative (Transcripts), Educational Testing Service, Box 2879, Princeton, New Jersey 08541. Credit recommendations for USAFI courses and tests may be obtained from OECC.

Official records for individuals who completed DANTES Subject Standardized Tests after July 1, 1974, can be obtained for a nominal fee from DANTES Contractor Representative (CLEP), Educational Testing Service, Box 2819, Princeton, New Jersey 08541.

Assistance in interpreting or applying these recommendations is available from the staff, Office on Education Credit and Credentials, Suite 20, One Dupont Circle, Washington, D.C. 20036. (Phone: 202-833-4770.)

Appendix A

The Evaluation Systems

During the period, 1945–80, the American Council on Education developed and refined comprehensive procedures and criteria for the evaluation of military learning experiences. This appendix outlines the historical development of the *Guide;* defines which courses can be found in the *Guide;* provides background information on Navy general rates and ratings; describes the evaluation systems used to prepare the recommendations for military formal courses and Navy ratings; and includes definitions and guidelines pertaining to categories of educational credit, the semester hour standard, categories of apprentice training, and clock hours and contact hours.

BACKGROUND

Early editions of the *Guide to the Evaluation of Educational Experiences in the Armed Services* were prepared in response to specific needs. Immediately after World War II, the consensus in the educational community was that the practice of granting blanket credit to World War I veterans as a reward for length of service was educationally unsound. Educators concluded that military learning experiences applicable to civilian curricula should be assessed by civilian education specialists for potential credit. Therefore, in December 1945, at the request of civilian educational institutions and the regional accrediting associations, the American Council on Education established the Commission on Accreditation of Service Experiences—renamed the Commission on Educational Credit and Credentials in 1979—to evaluate military educational programs and to assist institutions in granting credit for such experiences. Accordingly, the first edition of the *Guide* was published to assist educational institutions in evaluating service courses completed by returning veterans.

The extension of the World War II G.I. Bill to include veterans of the Korean conflict, and the subsequent enrollment of many veterans in colleges and universities, created a need for the second edition, published in 1954.

The 1968 edition was prepared in anticipation of the increased enrollment of veterans resulting from the educational assistance provided under the Veterans Readjustment Benefits Act of 1966, and with the expectation that many would apply for educational credit for their learning experiences in the armed services. In addition, technological advances had necessitated major changes in service training, with a resulting need for new or revised educational credit recommendations.

The 1974 edition was prepared primarily to respond to three emerging considerations. First, because of the growth in vocational and technical programs and the emergence of the concept of postsecondary education, there was a need to evaluate courses for possible credit in the vocational and technical categories in addition to the baccalaureate and graduate categories of previous editions. Second, active-duty service men and women were enrolling in increasing numbers in civilian educational programs and were seeking credit for related formal military courses soon after completing their service school training. Third, credit recommendations were needed for the many courses initiated or revised by the military since 1968.

The 1974 edition marked the beginning of a new approach to reporting evaluations of formal military training. At its fall 1973 meeting, the Commission approved the concept of an ongoing *Guide* system. Elements of that system include the publication of biennial editions of the *Guide* through computerized composition, continuous staff review of courses, and the computerized storage of course information for a more rapid updating of credit recommendations and for an improved ability to respond to inquiries related to course identification and credit recommendations.

Over the years the recommendations contained in the *Guide* have assisted education institutions in granting credit to hundreds of thousands of service men and women. Surveys conducted by the Office showed that most of the nation's colleges and universities use the formal course recommendations in awarding credit to veterans and active-duty service personnel. The recommendations have been widely accepted because military formal courses share certain key elements with traditional postsecondary programs: they are formally approved and administered, are designed for the express purpose of achieving learning outcomes, are conducted by qualified persons with specific subject-matter expertise, and are structured to provide for the evaluation of learning outcomes.

Until 1975, however, no mechanism existed for providing recognition for the learning a service man or woman attained through such learning experiences as self-instruction, on-the-job training, and work experience. As a first step in providing recognition for such learning experiences, the Commission in 1975 implemented a program for the evaluation of learning represented by demonstrated proficiency in Army enlisted military occupational specialties (MOS's). The MOS evaluation procedures were developed, tested, and refined during a feasibility study conducted by the Council and sponsored by the U.S. Department of the Army. Evaluators made recommendations for educational credit and advanced standing in apprentice training programs. Subsequently, the occupational assessment program of the Commission was expanded to include the general rates and ratings of the Navy Enlisted Manpower and Personnel Classification System and Army warrant officer MOS's.

The recommendations for advanced standing in apprentice training programs are the result of the cooperative efforts of the American Council on Education and labor and industry. The recommendations reflect the Commission's belief that it is sound educational practice to give recognition for learning, no matter how or where that learning has been attained, provided that the learning is at the appropriate level, is in the appropriate area, and is applicable to an individual's postsecondary program of study or apprenticeship program.

THE COURSES

Courses listed in the *Guide* are normally service school courses conducted on a formal basis, i.e., approved by a central authority within each service and listed by the service in its catalogue. These courses are conducted for a specified period of time with a prescribed course of instruction, in a structured learning situation, and with qualified instructors.

Most courses are given on a full-time basis (a minimum of thirty contact hours of instruction a week) for not less than two weeks' duration; or, if less than two weeks in length, the course must include a minimum of sixty contact hours of instruction. (Prior to 1973 the minimum length requirement was three weeks or 90 hours.) The American Council on Education also evaluates courses conducted for National Guard and Reserve personnel (not on extended active-duty status) when these courses meet the same requirements.

Recommendations for formal courses offered between World War II and 1954 are available in the 1954 edition of the *Guide* or from the Office on Educational Credit and Credentials upon written request by education officials. Courses in this *Guide* have a start date no earlier than 1954. In addition, military Subject Standardized Tests (SSTs) are evaluated by the American Council on Education, but are not included in the *Guide*; recommendations are available from the Office on Educational Credit and Credentials upon written request by education officials.

THE COURSE EVALUATION SYSTEM

In the fall of 1973, the Commission on Educational Credit and Credentials of the American Council on Education approved the following procedures and guidelines for the evaluation of military formal courses.

The Evaluation Process

Courses are evaluated by teams of at least three subject-matter specialists (college and university professors, deans, and other academicians). Through discussion and the application of evaluation procedures and guidelines, team members reach a consensus on the amount and category of credit to be recommended.

Evaluation materials include the course syllabus, training materials, tests, textbooks, technical manuals, and examinations. Additional information is obtained from interviews with instructors and program administrators, classroom observations, and examination of instructional equipment and laboratory facilities.

Each team of evaluators has two major tasks for each course: the formulation of a credit recommendation and the preparation of the course's description. The credit recommendation consists of the category of credit, the number of semester hours recommended, and the appropriate subject area. Using the information provided in the military syllabus, evaluators phrase the course description (which appears in the *Guide* exhibits under the headings "Objectives" and "Instruction") in terms meaningful to civilian educators. The course description supplements the credit recommendations by summarizing the nature of a given course.

Throughout the evaluation process, evaluators exercise professional judgment in applying the evaluative criteria and procedures. This position reflects the Commission's belief that sound educational evaluation is more dependent on professional judgment and expertise than on rigid application of criteria.

The Commission on Educational Credit and Credentials continually reviews its criteria and procedures. Evaluators are encouraged to provide feedback and recommendations for consideration by the Commission.

Selection of Evaluators

Nominations for course evaluators are requested from regional accrediting associations, professional and disciplinary societies, educational associations, and postsecondary institutions.

The criteria for the selection of formal course evaluators are as follows:

1. Area of an evaluator's competence, as evidenced by formal training and experiences, will closely approximate area of student training to be evaluated.
2. Preference will be given to candidates who are subject-matter specialists with five or more years of postsecondary teaching or administrative experience, including curriculum development.
3. Preference will be given to candidates who are generally receptive to the recognition of learning that occurs in a variety of settings.

THE NAVY ENLISTED RATING STRUCTURE

The Navy Enlisted Rating Structure is used for classifying enlisted personnel, identifying personnel qualifications, and reporting personnel requirements and resources. It also provides the framework for enlisted career development through paths of advancement from paygrades E-1 (recruit) through E-9 (master chief petty officer). For ACE purposes, there are two main types of occupational classifications in the Enlisted Rating Structure:

1. *General Rates (Apprenticeships)*—Identifications assigned to personnel at paygrades E-1, E-2, and E-3. There are six general rates: Airman, Constructionman, Dentalman, Fireman, Hospitalman, and Seaman. Each general rate involves the performance of entry-level tasks and leads to one or more ratings.
2. *Ratings*—Broad enlisted occupations that encompass similar duties and functions and that, in most instances, provide paths of advancement and career development for personnel from paygrades E-4 (petty officer third class) to E-9 (master chief petty officer). **Figure 1** shows the relationship between petty officer designations and paygrades. A complete list of ratings and the occupational fields to which they belong are included as **Appendix B.** Ratings require performance of routine tasks at the lower paygrades and more difficult tasks at progressively higher paygrades.

Figure 1: *Relationships between petty officer designations and paygrades*

Petty Officer Classifications:	Pay grades
Petty Officer Third Class (PO3)	E-4
Petty Officer Second Class (PO2)	E-5
Petty Officer First Class (PO1)	E-6
Chief Petty Officer (CPO)	E-7
Senior Chief Petty Officer (SCPO)	E-8
Master Chief Petty Officer (MCPO)	E-9

General rates and ratings are organized in career patterns. A career pattern provides the normal path of advancement from recruit (paygrade E-1) to master chief petty officer (paygrade E-9). An example of a career pattern is shown in **Figure 2.**

Figure 2: *Example of a Navy Enlisted Career Pattern*

General rate:		Pay grade
Airman (AN)	Airman Recruit	E-1
	Airman Apprentice	E-2
	Airman	E-3
Rating:		
Air Controlman (AC)	Air Controlman Third Class (AC3)	E-4
	Air Controlman Second Class (AC2)	E-5
	Air Controlman First Class (AC1)	E-6
	Chief Air Controlman	E-7
	Senior Chief Air Controlman (ACCS)	E-8
	Master Chief Air Controlman (ACCM)	E-9

To supplement occupational information contained in the Navy Enlisted Rating Structure and to provide the necessary requirements for general rates and ratings, the Navy has developed two sets of standards: naval standards and occupational standards. Naval standards are tasks that are essential to the overall effectiveness of enlisted personnel in the performance of their duties. They include standards pertaining to military requirements, professional development and naval tradition. Occupational standards identify the minimum tasks required for proficiency in general rates and ratings and provide the basis for the development of training and advancement requirements and of personnel policies and procedures. For both naval standards and occupational standards each higher paygrade represents more complex duties, increased skills, and greater responsibility. Proficiency in a higher paygrade includes the ability to perform the tasks and meet the standards required for the preceding paygrades, as well as those required for the higher paygrade. The naval standards for all paygrades are included in **Appendix D.** A complete set of occupational standards for one rating, Air Controlman, is included in **Appendix C.**

In addition to the Enlisted Rating Structure, the Navy Enlisted Occupational Classification System includes two other subsystems: The Navy Enlisted Classification (NEC) Structure and Special Qualifications. The NEC Structure supplements the Enlisted Rating Structure by identifying skills requiring more specific identification than that provided by general rates and ratings and which are not rating-wide requirements. Special Qualifications identify highly specialized occupational entities which cross several occupational areas and define the requirements of these areas. Because of the specialized nature and limited scope of the skills and qualifications required by most of the NEC Structure and Special Qualifications, NECs and Special Qualifications have not been evaluated by ACE.

The Navy Enlisted Evaluation and Advancement System

The Navy regularly evaluates the occupational proficiency of its men and women. In fact, the demonstration of occupational proficiency is directly linked to the *advancement system.* Only those individuals who have (1) demonstrated that they can perform the tasks required for the next higher paygrade, (2) completed the appropriate correspondence and/or residence courses for the next higher paygrade, (3) served a minimum length of time in their paygrade and in the service, and (4) been recommended by their commanding officer are allowed to take the advancement examination.

The primary evaluation technique is the Navy-wide written examination for each paygrade of each rating. It is a 150-item multiple choice test that is based on the occupational standards and tasks for each paygrade of a given rating. It is given more weight than any other factor in the evaluation process. Persons are not advanced in their rating until they have demonstrated that they are proficient in the next higher paygrade of the rating.

Before being considered for advancement, an individual *must* pass the written examination. Demonstrating proficiency in the next higher paygrade is a requirement for advancement. In addition, for advancement to petty officer third class (PO3) and petty officer second class (PO2)—paygrades E-4 and E-5—the applicable military/leadership examination must also be passed.

Examinations for petty officer third class, petty officer second class, and petty officer first class (paygrades E-4, E-5, and E-6) are administered semiannually. Those for chief petty officers, senior chief petty officers, and master chief petty officers are administered annually. Examinations for paygrade E-3 are administered by unit commanding officers when the individual has demonstrated readiness to take it. Written examinations are not used for paygrade E-2. Make-up tests are made available for Navy men and women who cannot take the test on the specified date because of extenuating circumstances.

A final multiple score is computed for each individual who takes the Navy-wide advancement examination. The final multiple score is composed of the following factors:

Factor	*Maximum Credit*
Written Examination Score	80
Performance Examination Score	50
Number of Years in Service	20
Number of Years in Paygrade	20
Medals and Awards	15
Passed-but-not-advanced (PNA) Points	15
TOTAL	200

The last factor included above, PNA points, applies to those individuals who passed the previous written examination and demonstrated they were qualified for advancement but were not advanced. This situation occurs when there is a scarcity of openings for advancement in a paygrade of a given rating and a person's final multiple score is not high enough to compete successfully with others in that paygrade.

It was determined by the ACE staff that the written testing techniques and procedures used by the Army and Navy are very similar. Because of the similarities and because the Army testing system had already been favorably reviewed by measurement specialists retained by ACE, it was not necessary to have them review the Navy written tests. As with the Army, subject-matter and apprenticeship specialists confirmed the content validity of the tests in the course of conducting evaluations.

Further information about the Navy Enlisted Occupational Classification System and the Navy Advancement System can be obtained by contacting the OECC Information Service.

THE NAVY RATING EVALUATION SYSTEM

The Navy rating evaluation system has three major components: the selection of evaluators; the materials required for evaluation; and the procedures and guidelines evaluators use in reaching decisions and making recommendations.

Selection of Evaluators

Nominations for evaluators are requested from postsecondary institutions; professional associations; disciplinary societies; labor unions; trade associations; industry associations; educational associations; regional accrediting associations; state departments of education; state credentialing, licensing, and certifying agencies; and the Bureau of Apprenticeship and Training of the U.S. Department of Labor.

The criteria for selection of Navy rating evaluators are as follows:

1. The area of an evaluator's competency, as evidenced by formal occupational training, knowledge, and experience, will closely approximate the skills, competencies, and knowledge required for proficiency in the general rate or rating.
2. Preference will be given to candidates who are experienced in administration of apprentice training programs when a general rate or rating is related to an apprenticeable trade.

3. Preference will be given to candidates who are subject-matter specialists with five or more years of postsecondary teaching or administrative experience, including curriculum development.
4. Preference will be given to candidates who are generally receptive to the recognition of learning that occurs in a variety of settings.

An evaluator candidate is interviewed by an OECC staff member to determine whether the individual meets the selection criteria.

Evaluations are conducted by teams of at least three specialists (five when the general rate or rating is apprenticeship related). The teams are formed by OECC staff members, using the following guidelines:

1. Subject-matter specialists on an evaluation team should represent a variety of postsecondary institutional types: 1-year/2-year/4-year: public/private; vocational/technical.
2. In the evaluation of a general rate or rating that is related to an apprenticeable trade, two evaluators on the team—one representing labor and one representing management—should have experience in the administration of that apprentice training program.
3. Each team of evaluators should represent a variety of persons from within education, labor, government, industry, and business who have had teaching, supervisory, and administrative experiences.

An effort is also made to attain a diverse geographic representation among evaluators. Teams are formed based on the general rates or ratings to be evaluated. Because skills required for proficiency in a general rate or rating do not always fall neatly into civilian educational and occupational fields and often encompass two or more fields, most evaluation teams include a curriculum generalist. Provision is also made for an evaluation team, when it finds it cannot thoroughly evaluate a general rate or rating, to refer it or a particular paygrade of it to another team or other specialists for further evaluation.

Materials Required for Evaluation

In order to make a recommendation, evaluators first identify the skills, competencies, and knowledge associated with a given general rate or rating. The materials relevant for each evaluation are made available to OECC staff members and evaluators by the Navy. Materials include the official Navy manuals that describe the duties and qualifications for each general rate and rating; the *Bibliography for Advancement Study;* rate training manuals and other publications used by Navy enlisted men and women in the day-today performance of their duties and to prepare for their advancement examinations; and the advancement examination. Additional information is obtained by observing and interviewing Navy men and women during visits to Navy bases and units.

Evaluation Procedures and Guidelines

Evaluators identify the skills, competencies, and knowledge required of Navy men and women who are qualified in a given general rate or paygrade of a rating and relate that demonstrated learning to the same attributes acquired by students who have completed a comparable postsecondary course or curriculum and by tradesmen and apprentices who have completed a related apprentice training program. Because the evaluations are based on a comparison of learning outcomes, the amount of time a given Navy enlisted man or woman may have spent acquiring occupational proficiency is not taken into consideration. The emphasis is on translating the learning demonstrated through occupational proficiency into terms used in formal postsecondary civilian education systems to recognize the same learning. This reflects the belief of the Commission on Educational Credit and Credentials that the value of learning is not dependent on where or how the learning occurs.

Evaluation teams are assigned four tasks in the evaluation of each general rate and rating: (1) to identify the learning represented by occupational proficiency by reviewing the pertinent written materials and by observing Navy men and women performing their occupations and interviewing them and their supervisors; (2) to prepare a description of the duties, skills, competencies, and knowledge required for each general rate and paygrade of a rating; (3) to make recommendations for each general rate and paygrade of a rating based on discussion and consensus; and (4) to make specific comments and suggestions about general rates and ratings (especially in those instances when neither educational credit nor advanced standing in an apprentice training program is recommended), which are forwarded by OECC to the Chief of Naval Education and Training.

THE RECOMMENDATIONS

In order to interpret exhibits correctly, readers should become thoroughly familiar with the definitions and guidelines utilized by evaluators in formulating the recommendations. The following paragraphs include definitions and guidelines pertaining to categories of educational credit, the semester hour, categories of apprentice training, and clock hours and contact hours.

Categories of Credit

Educational credit is a concept used by postsecondary institutions to quantify and record a student's successful completion of a unit of study. Postsecondary education consists of courses and programs of instruction for persons who are high school graduates or the equivalent, or who are beyond compulsory school age. ACE evaluators utilize the following categories of educational credit when formulating credit recommendations.

Vocational Certificate. This category describes course work of the type normally found in certificate or diploma (nondegree) programs that are usually a year or less in length and designed to provide students with occupational skills. This course work can also be found in curricula leading to associate degrees in applied science. Course content is specialized and the accompanying shop, laboratory, or similar practical components emphasize procedural more than analytical skills.

Lower-Division Baccalaureate/Associate Degree. This category describes course work of the type normally found in the first two years of a baccalaureate program and in programs leading to the Associate in Arts, the Associate in Science, or the Associate in Applied Science degree, the traditional transfer associate degrees. The instruction stresses development of analytical abilities at the introductory level. Verbal, mathematical, and scientific concepts associated with an academic discipline are introduced, as are basic principles. Occupationally oriented courses in this category are normally designed to prepare a student to function as a technician in a particular field.

Upper-Division Baccalaureate. This category describes courses of the type found in the last two years of a baccalaureate program. The courses involve specialization of a theoretical or analytical nature beyond the introductory level. Successful performance by students normally requires prior study in the area.

Graduate Degree. This category describes courses with content of the type found in graduate programs. These courses often require independent study, original research, critical analysis, and the scholarly and professional application of the specialized knowledge or discipline. Students enrolled in such courses normally have completed a baccalaureate program.

Semester Hours

Credit recommendations for courses are not derived by simple arithmetic conversion. Evaluators exercise professional judgment and consider only those portions of a course that can be equated with civilian postsecondary curricula. Intensive courses offered by the military do not necessarily require as much outside preparation as many regular college courses. Evaluators consider the factors of pre- and post-course assignments, prior work-related experience, the concentrated nature of the learning experience, and the reinforcement of the course material gained in the subsequent work setting.

The recommendations for Navy ratings are based on the skills, competencies, and knowledge learned, as demonstrated through proficiency in the rating, without reference to how much time elapsed during the learning process. The semester hour is used as a standard to express how many semester hours of appropriate course work a student would normally complete to attain the same learning outcomes or attest to the same level of competency.

Credit recommendations are expressed in semester credit hours. In determining semester hour recommendations, evaluators will be guided by, but not restricted to, the following standard definitions:

1. One semester credit hour for the equivalent of 15 hours of classroom contact plus 30 hours of outside preparation; or
2. One semester credit hour for the equivalent of 30 hours of laboratory work plus necessary outside preparation, normally expected to be 15 hours; or
3. One semester credit hour for the equivalent of not less than 45 hours of shop instruction (contact hours).

Apprentice Training

Apprentice training is the composite series of progressively more difficult learning experiences in the technology and skills of a tradesman. Apprentice training may be identified in clock hours or years of reasonably continuous on-the-job training and in contact hours of related instruction. On-the-job training and work experience focus on the performance of basic skills under the direct supervision of a journeyman. Related and supplemental instruction is normally closely correlated with on-the-job training, and the subject matter stresses practical application of technology. An *apprentice* is a person who is engaged in learning a trade by working with, and under the direct supervision of, a qualified journeyman in all phases of the trade for a specified period of time. A *journeyman* is a tradesman who has satisfactorily completed an apprentice training program or achieved proficiency in a given industry and who works without direct job supervision.

Clock Hours and Contact Hours

A recommendation for advanced standing in an apprentice training program is stated in clock hours of occupational experience and contact hours of related instruction. *Clock hours* are based on hours worked at a trade; *contact hours* are based on hours spent in the presence of a qualified instructor.

The Navy ratings recommendations are based on the skills, competencies, and knowledge learned, as demonstrated through proficiency in the rating, without reference to how much time elapsed during the learning process. Clock hours and contact hours are used to express how much of an apprentice training program an apprentice would normally complete to attain the same learning outcomes or attest to the same level of competency.

Other Recommendations

The Defense Activity for Non-Traditional Education Support (DANTES) maintains the educational records of the service men and women who have completed SSTs, CLEP examinations, and GED Tests.

The results of courses and tests taken under the auspices of USAFI (United States Armed Forces Institute; disestablished 1974) which carry academic credit and which were submitted prior to June 30, 1974, are available at no cost from: DANTES Contractor Representative (transcripts), Box 2879, Princeton, New Jersey 08540.

Results of Subject Standardized Tests and CLEP examinations taken under the auspices of DANTES after July 1, 1974, are available at a nominal charge from: DANTES Contractor Representative (CLEP), Educational Testing Service, P.O. Box 2819, Princeton, New Jersey 08540.

Test reports for GED Tests taken after July 1, 1974, can be obtained from: DANTES Contractor Representative (GED), GED Testing Service, American Council on Education, One Dupont Circle, Washington, D.C. 20036.

In addition, credit recommendations for USAFI courses and tests and for DANTES Subject Standardized Tests are available from the Office of Educational Credit and Credentials upon written request by education officials.

Appendix B

Navy Enlisted Occupational Fields and Ratings

Navy enlisted ratings are grouped into 24 occupational fields. Each field provides opportunities for advancement and career progression among closely related ratings. The 24 occupational fields and the ratings which each field encompasses are as follows:

1 **General Seamanship**
Boatswain's Mate (BM)
Signalman (SM)

2 **Ship Operations**
Operations Specialist (OS)
Quartermaster (QM)

3 **Marine Engineering**
Boiler Technician (BT)
Electrician's Mate (EM)
Engineering (EN)
Gas Turbine System Technician (GS)
Interior Communications Electrician (IC)
Machinist's Mate (MM)

4 **Ship Maintenance**
Hull Maintenance Technician (HT)
Instrumentman (IM)
Machinery Repairman (MR)
Molder (ML)
Opticalman (OM)
Patternmaker (PM)

5 **Aviation Maintenance/Weapons**
Aircrew Survival Equipmentman (PR)
Aviation Antisubmarine Warfare Technician (AX)
Aviation Electrician's Mate (AE)
Aviation Electronics Technician (AT)
Aviation Fire Control Technician (AQ)
Aviation Machinist's Mate (AD)
Aviation Maintenance Administrationman (AZ)
Aviation Ordnanceman (AO)
Aviation Structural Mechanic (AM)

6 **Aviation Ground Support**
Aviation Boatswain's Mate (AB)
Aviation Support Equipment Technician (AS)

7 **Air Traffic Control**
Air Controlman (AC)

8 **Weapons Control**
Electronics Technician (ET)
Fire Control Technician (FT)

9 **Ordnance Systems**
Gunner's Mate (GM)
Mineman (MN)
Missile Technician (MT)
Torpedoman's Mate (TM)

10 **Sensor Operations**
Electronics Warfare Technician (EW)
Ocean Systems Technician (OT)
Sonar Technician (ST)

11 **Weapons Systems Support**
Tradevman (TD)

12 **Data Systems**
Data Processing Technician (DP)
Data Systems Technician (DS)

13 **Construction**
Builder (BU)
Construction Electrician (CE)
Construction Mechanic (CM)
Engineering Aid (EA)
Equipment Operator (EO)
Steelworker (SW)
Utilitiesman (UT)

14 **Health Care**
Dental Technician (DT)
Hospital Corpsman (HM)

15 **Administration**
Legalman (LN)
Navy Counselor (NC)
Personnelman (PN)
Postal Clerk (PC)
Yeoman (YN)
Religious Program Specialist (RP)

16 **Logistics**
Aviation Storekeeper (AK)
Disbursing Clerk (DK)
Mess Management Specialist (MS)
Ship's Serviceman (SH)
Storekeeper (SK)

17 **Media**
Illustrater Draftsman (DM)
Journalist (JO)
Lithographer (LI)
Photographer's Mate (PH)

18 **Musician**
Musician (MU)

19 **Master-at-Arms**
Master-at-Arms (MA)

20 **Cryptology**
Cryptologic Technician (CT)

21 **Communications**
Radioman (RM)

22 **Intelligence**
Intelligence Specialist (IS)

23 **Meteorology and Oceanography**
Aerographer's Mate (AG)

24 **Aviation Sensor Operations**
Aviation Antisubmarine Warfare Operator (AW)

Appendix C

Naval Occupational Standards

Occupational Standards define the tasks enlisted personnel must perform to be proficient in their ratings. Knowledge required to perform a given task is assumed to be inherent in the proper performance of the task. Occupational Standards are written as task statements which are derived by personnel experts from the data resulting from a thorough analysis of the task and the rating.

The task statements are listed under topic titles. The topic titles provide a method of grouping similar standards for various ratings. Examples of topic titles are administration, publications, and maintenance planning and quality assurance. An example of a task statement for the air traffic controller second class administration is: "maintain air traffic operations logs and records."

Task statements are identified by five-digit numbers. The first two digits identify the topic title (38 for administration, for example). The remaining three digits identify the specific task statement. For example, the five-digit number that identifies the topic title and task statement for the air traffic controller second class mentioned in the preceding paragraph is 38235.

The occupational standards for the general rating, Air Traffic Controller, follow.

GENERAL INFORMATION

Career Pattern

ACCM
ACCS
ACC
AC1
AC2
AC3
Airman Apprenticeship

Normal path of advancement to Warrant Officer and Limited Duty Officer categories is to Aviation Operations Technician (732X) and LDO Aviation Operations (632X).

Special Physical Requirements

Vision 20/200 correctable in each eye to 20/20; normal color perception; normal hearing; no speech impediment; meet the physical requirements contained in Article 15-69, Manual of the Medical Department, U.S. Navy; pass examination for Class II FAA Medical Certificate (Part 67, FAA Regulations).

Citizenship/Security Requirements

Must be eligible for access to classified information.

Air Traffic Controllers (AC) perform air traffic control duties in air control towers, radar air traffic control facilities, and air operations offices ashore and afloat; operate radiotelephones, light signals and systems, and direct aircraft under VFR and IFR conditions; operate surveillance radar, precision radar, and identification equipment (IFF); operate ground- and carrier-controlled approach systems; assist pilots in the preparation and processing of flight plans and clearances; and maintain current flight planning information and reference materials.

Air Traffic Controller Third Class (AC3)

46 PUBLICATIONS

46323	Identify general contents and use of the flight information publication (FLIP) system

54 LOGISTICS SUPPORT

54537	Prepare, assemble, and maintain flight packets and brief pilots on their contents

63 AIR TRAFFIC CONTROL

63241	Identify the purpose and interrelationships of operator positions and equipment in air traffic control facilities
63242	Interpret Federal air regulations pertaining to air traffic control by Naval control tower personnel
63243	Direct air traffic under visual flight rules
63244	Issue instructions to vehicular traffic on the airfield and instructions to aircraft on the ground relative to taxiing, parking, and related airport information
63245	Issue oral instructions from the control tower to dispatch fire, crash, and rescue equipment for emergency landings, crashes, and accidents
63246	Record instrument flight rules (IFR) clearances and relay to aircraft
63247	Operate airport traffic control signal light gun
63248	Identify standard Navy airfield markings and lighting systems
63249	Identify types, designations, and comparative flight characteristics of U.S. military aircraft
63250	Carry out non-radar control of aircraft which have experienced an emergency situation in flight
63251	Effect radar handoff
63252	Provide advisory services utilizing air surveillance radar
63253	Interpret effect of weather and topography on the operating capability of radar, IFF and related equipment

63255	Maintain flight data and status boards
63256	Identify the types and purposes of flight assistance services
63257	Encode and decode hourly aviation weather
63258	Control aircraft utilizing precision approach radar
63267	Report and apply appropriate VFR weather minimums to air traffic control
63281	Process flight plans

77 SECURITY

77246	Carry out requirements for security of air traffic control communications

86 COMMUNICATIONS

86267	Prepare notams for release and process incoming notams
86268	Draft and process air traffic control data by teletype/interphone
86269	Operate intra/inter facility communications equipment
86270	Obtain and relay weather information to aircraft and local weather facilities

87 NAVIGATION AND TACTICAL SUPPORT

87211	Use standard aeronautical charts and publications used in air navigation

88 ELECTRICAL AND ELECTRONIC EQUIPMENT OPERATIONS

88231	Operate airfield lighting systems
88232	Check calibration and adjust radar indicators for effective target presentation
88233	Identify and monitor electronic aids to air navigation

Air Traffic Controller Second Class (AC2)

38 ADMINISTRATION

38235	Maintain air traffic operations logs and records

46 PUBLICATIONS

46325	Use DOD catalog of charts and publications to identify and order charts and publications

63 AIR TRAFFIC CONTROL

63254	Carry out radar control of aircraft which have experienced an emergency in flight
63259	Apply Federal air regulations and manuals and Navy directives pertaining to air traffic control facilities
63260	Assign and evaluate IFF/SIF codes
63261	Control aircraft utilizing air surveillance radar
63262	Apply procedures for search and rescue operations
63263	Direct air traffic under instrument flight rules
63264	Apply procedures for locating, identifying, and tracking aircraft
63265	Interpret characteristics, purposes, and general operating procedures of landing approach systems
63266	Direct air traffic control facility base operations function
63268	Apply minimums applicable to IFR approaches and departures and special VFR operations

Air Traffic Controller First Class (AC1)

38 ADMINISTRATION

38236	Maintain logs, publications, files, and records applicable to air traffic control facilities

44 TRAINING

44346	Carry out air traffic control facility training

54 LOGISTICS SUPPORT

54538	Requisition, inventory, and account for air traffic control equipment

63 AIR TRAFFIC CONTROL

63269	Supervise procedures used by control tower personnel
63270	Coordinate functions of radar air traffic control
63275	Apply holding pattern criteria

Chief Air Traffic Controller (ACC)

38 ADMINISTRATION

38237	Interpret and disseminate U.S. Navy and FAA regulations governing the operations of air traffic control facilities
38238	Prepare air traffic control facility reports
38239	Supervise the use, filing, and maintaining of publications, logs, and records

44 TRAINING

44347	Conduct emergency drills for air traffic control personnel
44348	Supervise the air traffic control facility training program

63 AIR TRAFFIC CONTROL

63271	Supervise radar air traffic control operations
63284	Supervise ATC facility flight checks

Senior Chief Air Traffic Controller (ACCS)

20 SAFETY

20259	Manage, coordinate, and evaluate safety programs and emergency drills

35 ADMINISTRATION

35476	Provide information and advise on utilization, capabilities, reliability, and operations in own area of responsibility
35478	Prepare local directives and instructions for attaining organization objectives and improving operations
35479	Prepare correspondence
35480	Establish and implement a program for interviewing, evaluating and assigning personnel to assure maximum utilization
35650	Plan, organize, and prepare runway use and noise abatement programs
35651	Review and submit air traffic control facility reports

44 TRAINING

44375	Organize and schedule training programs, evaluate effectiveness, and initiate improvements

50 MAINTENANCE, PLANNING AND QUALITY ASSURANCE

50713	Establish required inspection procedures; coordinate and ensure maintenance of air traffic control facility equipment

63 AIR TRAFFIC CONTROL

63272	Review and verify facility compliance with air systems command planning standards for approach zone criteria, obstruction lighting, and field marking

63273 Coordinate ATC facility flight checks

63274 Serve as air traffic control facility watch officer

Master Chief Air Traffic Controller (ACCM)

35 ADMINISTRATION

35483 Plan, organize, implement, and control activities in compliance with policy statements, operation orders, and directives

35489 Forecast future requirements, and plan and initiate action to satisfy requirements in own area of responsibility

35490 Establish goals, objectives and priorities in own area of responsibility

35492 Review personnel, equipment and material requirements

35870 Administer an air traffic control facility

52 FINANCIAL CONTROL

52298 Develop operating budgets and monitor expenditures

63 AIRCRAFT HANDLING AND AVIATION SUPPORT

63285 Prepare and interpret letters of agreement, directives, and memoranda applicable to air traffic control

Air Traffic Controller (AC)

Navy Enlisted Classifications

Occupational Area—Defense Grouping Code

DG-9720 Communications and Intelligence Specialists

Rating Conversion Code

AC-6999 Air Traffic Controller Basic

AC

OS-0317 NTDS Input/Utilization Display Equipment Operator, OS AC

AC-6901 Facility Rated Approach Controller, AC

AC-6902 Carrier Air Traffic Control Center Controller, AC

AC-6911 Carrier Air Traffic Control Center Controller Supervisor, AC

AC-6912 Carrier Controlled Approach Controller, AC

Appendix D

Naval Standards

Naval standards are tasks—skills and knowledge—other than those defined by occupational standards, that are essential to the overall effectiveness of enlisted personnel in the performance of their duties. They pertain to general rates and ratings for paygrades E-2 through E-9. They include standards pertaining to military requirements, professional development, and Naval tradition.

Naval standards are identified by six-digit numbers. The first three digits, always in the 900's, identify the standard topic title. The remaining three digits identify the specific task statement. For example, the number 901501 indicates that the standard topic title is "Watch, Quarter and Station Bill" and the specific task is "Procedures for preparation and station Bill."

Apprentice (E-2)

900 Military Requirements

901 WATCH, QUARTER AND STATION BILL

901201 Purpose and content of watch, quarter and station bill

902 SEAMANSHIP

902201 Terminology commonly used in deck and boat seamanship
902202 Procedures for locating an object by relative bearing and position angle measured in degrees
902203 Difference between true and relative bearings
902204 Nomenclature of deck equipment
902205 Methods of splicing rope and tying basic knots
902206 Types and sizes of line

903 DRILL

903201 Individual positions and facings used in close-order drill with arms
903202 Individual positions and facings without arms

904 UNIFORMS

904201 Qualifications to earn and wear the service stripes
904202 Sleeve insignia and/or collar device identification of U.S. Navy enlisted rates
904203 Grade insignia and corps devices of U.S. Naval officers
904204 Regulations for correct upkeep, wearing, marking, and exchanging U.S. Navy enlisted uniforms
904205 Regulations concerning identification tags and identification cards
904206 Grade insignia of other armed service grades and comparative U.S. Navy grades
904207 Regulations for correct wearing of U.S. Navy awards
904208 Regulations concerning proper grooming standards

905 SMALL ARMS

905201 Fire the service rifle and pistol in prescribed positions
905202 Perform field stripping, cleaning, and assembling of the service rifle and pistol
905203 Precautions required to prevent hearing loss when exposed to repeated small arms fire
905204 Safety precautions to be observed in handling fire arms

906 WATCHSTANDING

906201 Relieve an armed watch
906202 Stand a proper military watch
906203 Eleven general orders of a sentry (watch)
906204 Duties and responsibilities of a lookout
906205 Duties and responsibilities of a military watch

907 COMMUNICATIONS

907201 Standard telephone procedures and phraseology when using: (A) sound-powered telephones; (B) dial telephones; (C) intercoms
907202 Procedures to break-out, man, test, and secure a shipboard sound-powered headset
907203 Pronunciation of numbers and phonetic alphabet
907204 Communications security
907205 General administrative and emergency signal flags and pennants

908 SHIP AND AIRCRAFT CHARACTERISTICS

908201 Major types of ships and aircraft of the U.S. Navy
908202 Nomenclature of superstructure, decks, and components of the hull
908203 Numbering system for decks and lettering and numbering system for compartments
908204 General characteristics and mission of U.S. ships and aircraft

911 Personnel Safety

911 SAFETY

911201 Hazards to personnel when entering or working in unventilated spaces where CO$_2$ extinguishers have been discharged in such spaces
911202 Hazards to personnel when CO$_2$ "snow" is directed toward the face or exposed skin
911203 Precautions to be observed when handling and stowing fire extinguishers
911204 Dangers involved in letting go of a charged fire hose
911205 Dangers involved in grasping all-purpose nozzle by the control handle when securing
911206 Reasons for not using water on a Class "C" (electrical) fire
911207 Dangers involved in the operation of an internal combustion engine in an unventilated space
911208 Dangers of energizing and using electrical equipment in a space filled with explosive vapors
911209 Use, care, and stowage of the following life float equipment: (A) signal mirror, day and night distress signal, and dye marker; (B) first aid kit, rations and tarpaulin
911210 Typical hazardous or unacceptable environmental conditions
911211 Safety precautions when embarked in small boats
911212 Safety precautions for recreation and sports
911213 Safety precautions to be observed when in the vicinity of aircraft

911214 Safety precautions to be observed around living quarters

911215 General safety precautions involved in working with or in the vicinity of: (A) fuels, paints, approved cleaning agents, and flammables; (B) weapons, ammunitions, and pyrotechnics; (C) electric and electronic equipment; (D) compressed gases; (E) compressed air; (F) liquids under pressure; (G) steam; (H) lifelines, ladders, and scaffolding; (I) heavy weights and moving equipment; (J) personnel aloft or over the side; (K) voids, tanks, and closed compartments; (L) cutting and welding operations; (M) power tools; (N) high powered transmitters; (o) suspended loads

911216 Safety precautions when operating motor vehicles on and off duty

912 FIRST AID AND PERSONAL HYGIENE

912201 Procedure for applying a battle dressing

912202 Procedures for control of arterial and venous bleeding by compress, finger pressure, and tourniquet

912203 Procedures for preparing and applying an improvised splint

912204 Procedures for cardiopulmonary resuscitation

912205 Procedures for transporting an injured person by firemen's lift and tied-hands crawl

912206 Procedure for closed chest cardiac massage

912207 Purpose, general rules, and limitations of first aid

912208 Symptoms of and immediate treatment for shock

912209 Procedures for rescuing a person in contact with an energized electrical circuit and subsequent treatment for electrical shock

912210 Symptoms of, and first aid treatment for, simple and compound fractures and heat exhaustion and heat stroke

912211 Classification of burns, symptoms of, and first aid treatment for each

912212 Reasons for maintaining sanitary conditions

912213 Proper body cleanliness and personal care of the feet, hair and scalp

912214 Procedures and required equipment to maintain good oral hygiene

912215 Procedures for abdominal/chest thrust to remove foreign body obstruction

913 SURVIVAL

913201 Perform prescribed minimum swimming qualifications

913202 Techniques for preparing and using clothing and buoyant objects for staying afloat

913203 Proper use and care of inherently buoyant and CO_2 inflatable life-jackets

913204 Techniques of swimming through oil, flames, and debris under simulated conditions

913205 Preparation and methods for abandoning ships; best ways of going over the side; and type of clothing to be taken in abandoning ships in hot or cold climate

913206 Use of distilling equipment for obtaining drinking water; methods of catching and stowing rainwater

913207 Fundamentals of escape, evasion and the basic concepts of land survival

913208 Use of emergency escape breathing device

914 NUCLEAR, BIOLOGICAL AND CHEMICAL (NBC) DEFENSE

914201 Use of protective mask in a chamber or environment of riot control agent (CS) or dense smoke

914202 Use of currently issued protective and self-aid equipments and methods of adapting regularly issued clothing and equipments for protection against contamination

914203 Markers used to indicate that an area is contaminated

914204 Means by which biological operation agents enter the body

914205 Methods of dissemination of agents: (A) aerosols; (B) sabotage

914206 Methods used to decontaminate personnel

914207 Use of atropine

914208 Characteristics and effects of the following: (A) nerve agents; (B) blister agents; (C) blood agents; (D) choking agents; (E) screening agents

914209 Protective measures to be followed in the event of NBC attack

914210 Duties of member of a decontamination team

914211 Duties of member of a monitoring team other than monitor

914212 General procedures to be followed prior to, during, and after attack as set forth in the NBC defense bills

915 ENVIRONMENTAL POLLUTION CONTROL

915201 Basic Navy policy regarding environmental conditions and pollution control

920 Material Condition

921 DAMAGE CONTROL

921201 Four classes of fire and how each class is determined

921202 Recommended extinguishing agents for each class of fire

921203 Proper procedures to report a fire or other casualty

921204 Letters and symbols that designate the material conditions of readiness

921205 Purpose of watertight integrity and how compartmentation and material conditions of readiness are used to ensure watertight integrity

921206 Definition of the fire triangle in terms of fire prevention and firefighting

921207 Conditions that must exist for spontaneous combustion

921208 Necessity of good housekeeping practices for fire prevention

921209 Purpose of damage control central

921210 Use of each of the following as it pertains to damage control: (A) general announcing system; (B) sound-powered telephones; (C) messengers

921211 Use and proper stowage of the following: (A) portable internal combustion engine pump system(s); (B) educator discharge hose; (C) fire hose; (D) fire hose double male couplings; (E) fire hose double female couplings; (F) all-purpose nozzle; (G) fog applicator; (H) CO_2 fire extinguishing systems; (I) dry chemical fire extinguisher; (J) purple K powder (PKP); (K) aqueous film forming foam (AFFF)

921212 Function and proper use of the oxygen breathing apparatus (OBA)

921213 Three major material conditions of readiness

921214 How to obtain permission and procedures required to be followed prior to, during and after temporarily breaking watertight integrity

921215 Purpose of the damage control organization

921216 Function of the following: (A) typical fire main system; (B) fixed CO_2 system; (C) water washdown system; (D) magazine sprinkling system; (E) fixed foam system

921217 Components and functions of a typical shipboard fire station

921218 Procedure and reason for setting material condition yoke, zebra, and Circle William, and darken ship

921219 How to decrease high temperatures of compartments in the vicinity of a fire

921220 Purpose of primary and secondary fire and flooding boundaries

921221 Basics of shipboard emergency procedures in-port and underway

922 SURFACE PRESERVATION

922201 Cleaning and stowing of basic painting equipment

922202 Procedures for compartment cleaning

923 SECURITY REQUIREMENTS

923201 General scope and principles of security requirements and procedures pertinent to classified information and material: (A) basics of security; (B) security of classifications; (C) compromise of classified information; (D) security areas; (E) marking of classified material

930 Discipline

MILITARY CONDUCT

931201 Authority of, and services rendered by military police

931202 Basic content and responsibilities stated in Articles I through VI of the code of conduct for members of the Armed Forces of the United States

932 UNIFORM CODE OF MILITARY JUSTICE

932201 Purpose of military discipline and punishment

932202 General content of the following articles: (A) commanding officer's nonjudicial punishment (Art. 15); (B) compulsory self-incrimination prohibited (Art. 31); (C) complaints of wrongs (Art. 138); (D) courts-martial classified (types) (Art. 16); (E) cruel and unusual punishment (Art. 55); (F) punitive articles (77–134) and Navy regulations, chapter 11; (G) apprehension and restraint (Art. 7 through 14); (H) persons subject to the code (Art. 2); (I) redress of injuries to property (Art. 139); (J) articles to be explained (Art. 137); (K) who may serve on courts-martial (Art. 25); (L) appointment of trial counsel and defense counsel (Art. 27); (M) unlawfully influencing action of court (Art. 37); (N) duties of trial and defense counsel (Art. 38)

940 Professional Development

941 CAREER INFORMATION

941201 Purpose of entry series NEC codes

941202 Reasons for and consequences of five types of discharges

941203 Basic understanding of the enlisted career structure and eligibility for advancement

941204 Purpose and effect of marks received on report of enlisted performance evaluation

941205 Meaning of accrued, earned, emergency, excess, and advance leave

941206 Basic understanding of military pay system

941207 Basic understanding of educational and training opportunities

941208 Contents of the enlisted service record

941209 Opportunity for acquiring a Naval commission

941210 Eligibility for and cost of government insurance benefits

941211 Reenlistment quality control program

941212 Incentives for making the Navy a career

941213 Meaning of sea duty, shore duty and neutral duty

950 Naval Tradition

951 SEA POWER

951201 Basic Naval history and the evolution of today's Navy

951202 Basic roles and missions of the Navy

952 CUSTOMS AND COURTESIES

952201 Perform the hand salute

952202 Perform the rifle salute

952203 Procedures for proper handling of the ensign and jack

952204 When and to whom the individual hand and rifle salutes are to be rendered

952205 Military courtesies required in the following situations: (A) during colors; (B) boarding or leaving a Naval vessel; (C) crossing or being in the vicinity of the quarterdeck; (D) when in Naval uniform or civilian dress the national ensign passes or national anthem is played; (E) when passing, meeting, addressing, introducing, replying to, walking or riding with any officer of the U.S. foreign armed forces; (F) when addressing and introducing enlisted personnel of the U.S. armed forces; (G) when ship and boat passing honors are rendered, and when in the vicinity of a gun salute

953 ORGANIZATION

953201 Purpose and function of the chain of command

960 Human Goals

961 EQUAL OPPORTUNITY AND HUMAN RIGHTS

961201 Basic Navy policy for equal opportunity and human rights

962 DRUG AND ALCOHOL ABUSE

962201 Basic Navy policy for drug and alcohol abuse

970 International Agreements

970201 General provisions of Geneva Convention with respect to treatment and rights of POWs and information that every POW is required to provide, when questioned

972201 General purpose of the status of forces agreement concerning personnel of the armed forces in foreign countries

Apprentice (E–3)

All preceding requirements and the following additional requirements:

910 Personnel Safety

914 NUCLEAR, BIOLOGICAL AND CHEMICAL (NBC) DEFENSE

914301 Effects of nuclear radiation (alpha and beta particles, gamma rays and neutrons)

914302 Meaning of the following terms as applied to radiological defense: (A) radiac; (B) radiation dose; (C) radiation dose rate; (D) safe stay time; (E) material condition "Circle William"

914303 Differences between radiation and radiological contamination

914304 Purpose and use of the casualty dosimeter in terms of when used, by whom, and for what purpose

914305 Purpose, use of, and how to interpret a self-reading pocket dosimeter

920 Material Condition

922 SURFACE PRESERVATION

922301 Basic methods and procedures to prepare and paint a surface

922302 Fixtures and devices to which paint or liquid cleaners should not be applied

950 Naval Tradition

953 ORGANIZATION

953301 Purpose and content of the ship's/command's organization and regulations manual

953302 Standard unit organization and general responsibility of each department

Petty Officer Third Class (E-4)

All preceding requirements and the following additional requirements:

900 MILITARY REQUIREMENTS

903 DRILL

903401 Conduct close-order drill

906 WATCHSTANDING

906401 General duties of petty officer of the watch, section leader, master-at-arms, police petty officer, and military police

920 MATERIAL CONDITION

921 DAMAGE CONTROL

921401 Identification of damage control lockers and use of contents (construction ratings exempt)

922 SURFACE PRESERVATION

922401 Appropriate types of cleaning solvents for interior and exterior use

930 Discipline

931 MILITARY CONDUCT

931401 How and when to place personnel on report

940 Professional Development

943 LEADERSHIP

943401 Fundamentals of leadership: (A) guided by reason and experience based on rules and regulations; (B) recognition of value and worth of the individual; (C) recognition of basic equality of man

943402 Meaning and application of the following leadership principles: (A) knowing the job to be done; (B) exhibiting and instilling pride in high standards of work; (C) seeking additional responsibility; (D) knowing own men and recognizing individual differences; (E) possessing own sense of responsibility; (F) delegating authority; (G) keeping men informed; (H) being foresighted; (I) commanding and leading; (J) promoting morale; (K) when to praise, censure, and warn

944 MANAGEMENT

944401 Principles of the maintenance and material management system in own area of responsibility

Petty Officer Second Class (E-5)

All preceding requirements and the following additional requirements:

900 Military Requirements

901 WATCH, QUARTER AND STATION BILL

901501 Procedures for preparation and maintenance of the watch, quarter and station bill

910 Personnel Safety

914 NUCLEAR, BIOLOGICAL AND CHEMICAL (NBC) DEFENSE

914501 Basic organization of teams to decontaminate radioactive areas and areas contaminated by chemical or biological agents

940 Professional Development

941 CAREER INFORMATION

941501 Purpose and effect of marks received on evaluation report as applicable to paygrades E-5 through E-9

942 TRAINING

942501 Procedures for the indoctrination of personnel reporting for duty

942502 Methods of organizing appropriate subject matter and instructing a group by the demonstration method, observing the following steps: (A) setting objectives; (B) presenting the subject matter; (C) providing trainee application through practical work and drill; (D) summarizing key points; (E) testing trainee achievement

942503 Maintenance of division training records

950 Naval Tradition

952 CUSTOMS AND COURTESIES

952501 Duties and responsibilities of quarterdeck watch officer

953 ORGANIZATION

953501 Names, abbreviations and broad responsibilities of the bureaus and systems commands of the Navy Department

Petty Officer First Class (E-6)

All preceding requirements and the following additional requirements:

940 Professional Development

941 CAREER INFORMATION

941601 Eligibility for and cost of survivor's benefit plan

944 MANAGEMENT

944601 Contents and preparation of enlisted performance evaluation forms

944602 Relationship between Bureau of Naval personnel, fleet commander billet priorities, and detailing procedures

Chief Petty Officer (E-7)

All preceding requirements and the following additional requirements:

910 Personnel Safety

911 SAFETY

911701 Procedures for preliminary investigation of personal injury/death including completion of accident report forms

920 Material Condition

921 DAMAGE CONTROL

921701 Function of personnel protective clothing system as stated in disaster control (ashore and afloat) and Navsea Technical Manual

940 Professional Development

941 CAREER INFORMATION

941701 Supervisory responsibilities for the career counseling program

942 TRAINING

942701 Methods of developing and administering a written test which includes multiple-choice, true-false, and completion type questions

942702 Use of graphic or visual training aids

942703 Procedures for instructing by each of the following methods: (A) lecture; (B) questions and guided instruction; (C) drill and practical work; (D) written study materials; (E) on-the-job training

944 MANAGEMENT

944701 Procedures for preparation and submission of budget requests for management of quarterly allotments within area of responsibility

944702 Administration of the procurement, care, preservation, stowage, inventory and disposal of stores, equipment, and repair parts within area of responsibility

944703 General function and use of Navy Enlisted Classification (NEC) System

944704 Responsibility for signature authority on official documents

944705 Preparation of reports

944706 Standards to follow in indoctrinating personnel in completing enlisted performance evaluation forms

944707 Critique and follow-up procedures used by petty officers to counsel personnel on their performance evaluations

950 Naval Tradition

953 ORGANIZATION

953701 General organization and operation of chief petty officer messes

Senior Chief Petty Officer (E-8)

All preceding requirements and the following additional requirements:

940 Professional Development

942 TRAINING

942801 Methodology for planning, organizing, directing, and coordinating programs

944 MANAGEMENT

944801 Regulations and policies for preparing and conducting administrative, material, and operational readiness inspections

944802 Procedures for conducting formal and informal investigations

944803 Management techniques for the following: (A) fiscal responsibility; (B) production efficiency; (C) personnel administration

944804 Preparation and presentation of briefings

944805 Procedures for establishing programs of individual and group counseling regarding drug abuse, excessive consumption of alcohol, and personal financial management

944806 Duties and responsibilities of a division officer

944807 Procedures for the following: (A) Rate/NEC changes in manpower authorization (OPNAV Form 1000/2) and enlisted distribution and verification report (NAVPERS 1080-14); (B) school quotas; (C) NEC assignment to personnel

944808 Coordinating procedures for preparation and implementation of local directives, regulations, bills, orders, reports, and training plans

Master Chief Petty Officer

All preceding requirements.

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Navy Occupational Title Index

The following columns cross-reference Navy enlisted occupations to exhibit ID numbers. Titles are listed alphabetically.

Aerographer's Mate	NER-AG-001
Air Controlman	NER-AC-001
Air Traffic Controller	NER-AC-001
Aircraft Maintenanceman, Master Chief	NER-AF-001
Aircrew Survival Equipmentman	NER-PR-001
Airman	NER-AN-001
Aviation Antisubmarine Warfare Operator	NER-AW-001
Aviation Antisubmarine Warfare Technician	NER-AX-001
Aviation Boatswain's Mate	NER-AB-001
Aviation Boatswain's Mate, Aircraft Handling	NER-ABH-001
Aviation Boatswain's Mate, Fuels	NER-ABF-001
Aviation Boatswain's Mate, Launching and Recovery Equipment	NER-ABE-001
Aviation Electrician's Mate	NER-AE-001
Aviation Electronics Technician	NER-AT-001
Aviation Fire Control Technician	NER-AQ-001
Aviation Machinist's Mate	NER-AD-001 NER-AD-002 NER-AD-003
Aviation Machinist's Mate Jet Engine Mechanic	NER-ADJ-001
Aviation Machinist's Mate, Reciprocating Engine Mechanic	NER-ADR-001
Aviation Machinist's Mate, Senior Chief	NER-AD-001 NER-AD-002
Aviation Maintenance Administrationman	NER-AZ-001
Aviation Ordnanceman	NER-AO-001
Aviation Storekeeper	NER-AK-001
Aviation Structural Mechanic, Hydraulics	NER-AMH-001
Aviation Structural Mechanic, Safety Equipment	NER-AME-001
Aviation Structural Mechanic Senior Chief	NER-AM-001
Aviation Structural Mechanic, Structures	NER-AMS-001
Aviation Support Equipment Technician	NER-AS-001 NER-AS-002
Aviation Support Equipment Technician, Electrical	NER-ASE-001 NER-ASE-002
Aviation Support Equipment Technician, Hydraulics and Structures	NER-ASH-001
Aviation Support Equipment Technician, Mechanical	NER-ASM-001 NER-ASM-002
Avionics Technician, Master Chief	NER-AV-001
Boatswain's Mate	NER-BM-001
Boiler Technician	NER-BT-001
Builder	NER-BU-001
Construction Electrician	NER-CE-001
Constructionman	NER-CN-001
Constructionman, Master Chief	NER-CU-001
Construction Mechanic	NER-CM-001
Cryptologic Technician	NER-CT-001
Data Processing Technician	NER-DP-001
Data Systems Technician	NER-DS-001
Dentalman	NER-DN-001
Dental Technician	NER-DT-001
Disbursing Clerk	NER-DK-001
Electrician's Mate	NER-EM-001
Electrician's Mate, Master Chief	NER-EM-002
Electronics Technician	NER-ET-001 NER-ET-002
Electronics Technician, Communications	NER-ENT-001
Electronics Technician, Radar	NER-ETR-001
Electronics Warfare Technician	NER-EW-001
Engineering Aid	NER-EA-001
Engineman	NER-EN-001
Equipmentman, Master Chief	NER-EQ-001
Equipment Operator	NER-EO-001
Fire Control Technician	NER-FT-001
Fire Control Technician, Ballistic Missile Fire Control	NER-FTB-001
Fire Control Technician, Gun Fire Control	NER-FTG-001
Fire Control Technician, Surface Missile Fire Control	NER-FTM-001
Fireman	NER-FM-001
Gas Turbine System Technician	NER-GS-001
Gas Turbine System Technician, Electrical	NER-GSE-001
Gas Turbine System Technician, Mechanical	NER-GSM-001
Gunner's Mate	NER-GM-001
Gunner's Mate, Guns	NER-GMG-001
Gunner's Mate, Missiles	NER-GMM-001
Gunner's Mate, Technician	NER-GMT-001

Hospital Corpsman NER-HM-001
Hull Maintenance Technician NER-HT-001

Illustrator Draftsman NER-DM-001
Instrumentman NER-IM-001
Intelligence Specialist NER-IS-001
Interior Communications Electrician NER-IC-001

Journalist NER-JO-001

Legalman NER-LN-001
Lithographer NER-LI-001

Machinery Repairman NER-MR-001
Machinist's Mate NER-MM-001
Master-at-Arms NER-MA-001
Mess Management Specialist NER-MS-001
Mineman NER-MN-001
Missile Technician NER-MT-001
Molder NER-ML-001
Molder, Senior Chief and Master Chief NER-ML-002
Musician NER-MU-001

Navy Counselor NER-NC-001

Ocean Systems Technician NER-OT-001
Operations Specialist NER-OS-001
Opticalman NER-OM-001

Patternmaker NER-PM-001
Personnelman NER-PN-001
Photographer's Mate NER-PH-001
Postal Clerk NER-PC-001
Precision Instrumentman, Master Chief NER-PI-001

Quartermaster NER-QM-001

Radarman NER-OS-001
Radioman NER-RM-001
Religious Program Specialist NER-RP-001

Seaman NER-SN-001
Ship's Serviceman NER-SH-001
Signalman NER-SM-001
Sonar Technician, Master Chief NER-ST-001
Sonar Technician, Submarine NER-STS-001
Sonar Technician, Surface NER-STG-001
Steelworker NER-SW-001
Storekeeper NER-SK-001

Torpedoman's Mate NER-TM-001
Tradevman NER-TD-001

Utilitiesman NER-UT-001

Yeoman NER-YN-001

Keyword Index

This index is designed to provide rapid access to the courses described in the course exhibit section. Titles of courses are arranged alphabetically under keywords which have been extracted verbatim from the titles. For example, the keyword *Data Processing* is followed by all titles containing the words *Data Processing.*

To locate a specific course, identify a word or group of words in the title which seems to be unique or descriptive. For example, the title *Data Processing Specialist, COBOL* can be found under the keywords *Data Processing* or *COBOL*. Similarly, the title *Russian Technician* can be found under the keyword *Russian.*

The ID number for each course is displayed to the right of the title. Refer to that number in the course exhibit section for a full description of the course.

A-3
- A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance NV-1715-0263
- A-3 Related Avionics System (AT/AQ) Organizational Level Maintenance NV-1715-0279
- A-3 Related Avionics System (AT/AQ) Organizational Maintenance NV-1715-0279
- A-3 S-5 Auto Pilot Maintenance NV-1704-0198
- Missile Technician Mk 84 Polaris (A-3) NV-1715-0607

A3B
- A3B AN/ASB-1A System Maintenance (Less Computer CP-66A) NV-1715-0281
- A3B ASB-7 Radar Stabilization and Auxiliary Subsystems Maintenance (Less CP-209 and AN/APN-122) NV-1715-0363
- A3B, RA3B, EA3B AN/ALQ-35 DECM System Maintenance NV-1715-0525

A-4
- A-4 AN/AJB-3/3A Organizational Maintenance NV-1715-0294
- A-4 Armament System Organizational Maintenance NV-1715-0631
- A-4 Automatic Flight Control System Intermediate Maintenance NV-1704-0015
- A-4 Automatic Flight Control System Organizational Maintenance NV-1704-0035
- A-4 Conventional Weapons Training NV-2202-0077
- A-4 Integrated Electrical Systems Organizational Maintenance NV-1704-0185
- A-4(J52-P-6A/8A) Power Plant and Related Systems Organizational Maintenance NV-1704-0170
- A-4 Tactical Air Navigation (TACAN) AN/ARN-52(V) NV-1715-0288
- A-4 Walleye Weapon Delivery System NV-1715-0733

A-4C/E
- A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator NV-1715-0615

A-4C/E/F
- A-4C/E/F AN/APG-53A Radar Intermediate Maintenance NV-1715-0280

A-4E
- A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational) NV-1704-0098
- A-4E Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0452

A-4E/F/TA-4F
- A-4E/F/TA-4F Aircraft Mechanic Organizational Maintenance NV-1704-0023

A-4F/L/TA-4F
- A-4F/L/TA-4F Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0383

A-4M
- A-4M Aircraft Mechanics NV-1704-0065
- A-4M Electrical Systems Organizational Maintenance NV-1704-0102

A-5A
- A-5A RA-5C AN/ASB-12 Line and Shop Maintenance NV-1715-0521

A-6
- A-6 AN/APQ-112 Track Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0302
- A-6 AN/APQ-92 Radar Antenna/Receiver and Associated Test Set Intermediate Maintenance NV-1715-0514
- A-6 AN/APQ-92 Search Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0596
- A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance NV-1715-0475
- A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance NV-1715-0370
- A-6 AN/ASQ-61A Ballistics Computer Intermediate Maintenance NV-1715-0068
- A-6 AN/ASQ-61A Ballistics Computer Theory NV-1715-0067
- A-6 AN/ASQ-61 Ballistics Computer Intermediate Maintenance NV-1715-0068
- A-6 Associated Radar Test Equipment Intermediate Level Maintenance NV-1715-0406
- A-6 Avionics Systems Organizational Level Maintenance NV-1715-0474
- A-6 Ballistics Computer Test Console Intermediate Maintenance NV-1715-0342
- A-6 BNCN and BNCB Test Set, Intermediate Maintenance NV-1715-0051
- A-6 Bombardier Navigator Control Box and Associated Test Set, Intermediate Maintenance NV-1715-0051
- A-6 Card Module Analyzer Test Console, AN/ASM-118, Intermediate Maintenance NV-1715-0336
- A-6 Data Processing Unit and Associated Test Set Intermediate Maintenance NV-1715-0650

A-6 Electronic Module Test Console Intermediate Maintenance NV-1715-0451
A-6 Maintenance Supervisors Familiarization NV-1704-0165
A-6 Memory Drum Test Console, AN/ASM-316 (XN-1) and Card and Module Tester Intermediate Maintenance NV-1715-0071
A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance NV-1715-0297
A-6 Plane Captain NV-1704-0118
A-6 Right Hand Unit Alignment Test Set, and Encoder Tape Dial Test Set Intermediate Maintenance NV-1715-0335
A-6 Search Radar Module Analyzer Test Console NV-1715-0530
A-6 Ship and Shore Inertial Platform Test Station Intermediate Maintenance NV-1715-0177
A-6 Track Radar Module Analyzer Test Console and Detailed Module Theory (Intermediate Level Maintenance) NV-1715-0429
A-6 Weapons System Specialist Organizational Maintenance NV-1715-0272

A6441FN-248
T56-A-8/8A Engine and A6441FN-248 Propeller NV-1704-0029
T56-A-8/8A Engine and Aeroproducts A6441FN-248 Propeller Intermediate Maintenance NV-1704-0029

A-6A
A-6A AN/APQ-112 Track Radar Test Console and Detailed Radar Intermediate Maintenance NV-1715-0435
A-6A AN/APQ-92 Search Radar and Module Analyzer Test Bench Intermediate Maintenance NV-1715-0431
A-6A AN/ASN-31 Inertial Navigation Organizational Level Maintenance NV-1715-0476
A6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance NV-1715-0159
A-6A Armament Systems Organizational Maintenance NV-1704-0167
A-6A Automatic Flight Control System Intermediate Maintenance NV-1715-0699
A-6A Automatic Flight Control System Organizational Maintenance NV-1704-0022
A-6A Conventional Weapons NV-2202-0015
A-6A Electrical Systems Intermediate Maintenance NV-1704-0108
A-6A Electrical Systems Maintenance NV-1704-0088
A-6A Electrical Systems Organizational Maintenance NV-1704-0100
A-6A Environmental, Escape and Survival Systems Organizational Maintenance NV-1704-0085
A-6A Hydraulics and Flight Controls Organizational Maintenance NV-1704-0129
A-6A Maintenance Supervisors Familiarization NV-1704-0078
A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance NV-1715-0109
A-6A Power Plants and Related Systems Organizational Level Maintenance NV-1704-0164
A6A Programmer, Semi-Automatic Test Equipment Intermediate Maintenance NV-1715-0074
A-6A Shoehorn Organizational Maintenance NV-1715-0458
A-6A Track Radar and Module Analyzer Test Console Intermediate Maintenance NV-1715-0429
A-6A Weapons System Specialist NV-1715-0272
A-6A Weapons System Specialist Organizational Maintenance NV-1715-0691

A-6/KA-6D
A-6/KA-6D Electrical Power Systems Intermediate Maintenance NV-1704-0097

A-7
A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance NV-1715-0200
A-7 AN/APQ-116 Radar Set Intermediate Maintenance NV-1715-0408
A-7 AN/ASN-90 Inertial Measurement Set Intermediate Maintenance NV-1715-0388
A-7 AN/ASW-26/30 Automatic Flight Control System Intermediate Maintenance NV-1715-0617
A-7 Armament Systems Maintenance NV-1704-0084
A-7 Automatic Flight Control System Organizational Maintenance NV-1715-0807
A-7 Electrical and Instrument Systems Organizational Maintenance NV-1704-0079
A-7 M61A1 Gun and Associated Systems Intermediate Maintenance NV-2202-0097

A-7A/B
A-7A/B Attitude Heading and Reference System Intermediate Maintenance NV-1721-0006
A-7A/B/E AN/ASW-26/30 Automatic Flight Control System Organizational Maintenance NV-1715-0807
A7A/B Hydraulic and Pneumatic Systems Organizational Maintenance NV-1704-0190
A-7A/B Integrated Avionics Weapons System Technician Organizational Maintenance NV-1715-0450
A-7A/B Power Plant and Related Systems Organizational Maintenance NV-1704-0135
A7A/B Structures, Hydraulics and Pneumatic Systems Maintenance NV-1704-0190
A-7A/B TF30-P-6/408 Power Plants and Related Systems Organizational Maintenance NV-1704-0135

A-7E
A-7E AN/APQ-126 Radar Set Intermediate Maintenance NV-1715-0260
A-7E AN/ASM-375 Inertial Measurement System Test Set Intermediate Maintenance NV-1715-0146
A-7E AN/ASN-91 Tactical Computer Intermediate Maintenance NV-1715-0070
A-7E Armament System Maintenance NV-1704-0173
A-7E C-8185 Armament Station Control Unit Intermediate Maintenance NV-1704-0203
A-7E Electrical and Instrument Systems Organizational Maintenance NV-1704-0080
A-7E Hydraulic and Pneumatic Systems Organizational Maintenance NV-1704-0013
A-7E Powerplant and Related Systems Organizational Maintenance NV-1704-0140
AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E) NV-1704-0229

A/A24G-13
C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance NV-1715-0461
E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) NV-1715-0460

AAA
Light Antiaircraft Artillery (AAA) Fire Control Repair MC-1715-0034 MC-1715-0036
Medium Antiaircraft Artillery (AAA) Fire Control Repair MC-1715-0056

AASW
AASW for Second Tour Pilots, P3A/B(D) NV-2202-0032
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots P3A/B/(D) NV-1715-0270
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P3C NV-1606-0028
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D) NV-1715-0555
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers, P3C

NV-1304-0003
- Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D) NV-2202-0032
- Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C NV-2202-0021
- Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P3C NV-1715-0696
- Aviation Antisubmarine Warfare (AASW) operator, Class A NV-1715-0536
- Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P3C NV-1715-0696
- Aviation Antisubmarine Warfare (AASW) Technician, Class A NV-1715-0154
- Carrier Aviation Antisubmarine Warfare (AASW) Acoustic Operator (Passive) NV-2202-0096
- Carrier Fixed Wing Antisubmarine (AASW) Warfare Tactics NV-2202-0001
- Intermediate Aviation Antisubmarine Warfare (AASW) Technician, Class B NV-1715-0167

ABC
- ABC Warfare Defense Afloat NV-0802-0008
- Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors NV-0802-0001

Abuse
- Drug Abuse Program Officers NV-0801-0006

Academic
- Academic Instructor Training NV-1406-0003

Accountable
- Accountable Officer MC-1405-0015

Accounting
- Automated Supply and Accounting Systems Afloat (AN/UYK-5(V)) NV-1401-0003
- Electrical Accounting Machines (EAM) MC-1402-0019
- Fiscal Accounting Clerk MC-1402-0026

Acoustic
- Acoustic Anti-Submarine Operator Transition NV-1715-0676
- Carrier Aviation Antisubmarine Warfare (AASW) Acoustic Operator (Passive) NV-2202-0096
- P-3A/B Sensor Station One and Two (Acoustic System Technician) Organizational Maintenance NV-1715-0506
- P-3C Sensor Station One and Two (Acoustic Systems Technician) Organizational Maintenance NV-1715-0256

Acquisition
- Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT) NV-1715-0693

ADCOC
- Air Defense Control Officer, Automated System (ADCOC) MC-1704-0006

Administration
- Administrative Chief's Personnel Administration MC-1406-0008
- Administrative Officers Personnel Administration MC-1408-0006
- Advanced Supply Administration MC-1405-0005
- Aviation Maintenance Administration, Class A NV-1409-0003
- Aviation Maintenance Control Administration NV-1717-0008
- Basic Legal Administration MC-1728-0004
- Basic Personnel Administration MC-1406-0007
- Basic Supply Administration MC-1405-0004
- Basic Supply Administration (Mechanized) MC-1405-0005 MC-1405-0008
- Communications Technician Administration Branch Class A NV-1715-0400
- Construction Contract Administration and Management NV-1408-0009
- Contract Administration—Accelerated NV-1408-0009
- Cryptologic Technician A (Administration)—Class A NV-1715-0400
- First Sergeants Personnel Administration MC-1406-0005
- Instructor, Class C-1 Administration and Counseling NV-1408-0008
- Naval School of Hospital Administration NV-0799-0001
- Personnel Chief's Personnel Administration MC-1406-0008
- School Administration, Class C1, Course 'Golf' NV-0326-0002
- Sergeants Major Personnel Administration MC-1406-0004
- Supply Administration MC-1405-0005
- Warrant Officer Personnel Administration MC-1406-0006
- Woman Marine Officer's Personnel Administration MC-1408-0005

Administrationman
- Aviation Maintenance Administrationman, Class A NV-1409-0003

Administrative
- Administrative Chief's Personnel Administration MC-1406-0008
- Administrative Clerk MC-1403-0002
- Administrative Officers Personnel Administration MC-1408-0006
- Electronics Officers Administrative NV-1715-0721
- Medical Administrative Technic NV-1408-0021
- Medical Administrative Technic, Dental NV-1408-0021
- Medical Administrative Technician, Class C NV-1408-0021
- Medical Administrative Technician (Dental), Class C NV-1408-0021

ADP
- Automatic Data Processing (ADP) Orientation MC-1402-0014
- Automatic Data Processing (ADP) Orientation (7E) MC-1402-0044

Advanced
- Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership MC-1703-0012
- Advanced Course (Class B) NV-1205-0002
- Advanced Disbursing Man MC-1408-0007
- Advanced Disbursing Man Leadership MC-1408-0007
- Advanced Phase, Pilot Training NV-1606-0050
- Advanced Submarine Quartermaster School NV-1708-0003
- Advanced T Branch Training Orientation NV-1715-0844
- Advanced Welding NV-1710-0055
- Music Advanced, Class C-7 NV-1205-0002
- Music, Class B, Advanced NV-1205-0002
- Naval School of Music, Class B, Advanced NV-1205-0002
- Reserve Cryptologic Technician T, Advanced, Class F1 NV-1715-0844

Advisor
- Drug and Alcohol Program Advisor NV-0799-0005
- Intelligence Advisor Vietnam NV-1606-0001
- Intercultural Relations—Vietnam Advisor Training NV-1513-0003
- Naval Advisor NV-1513-0002
- Naval Staff Advisor NV-1513-0001
- Riverine/Coastal Advisor Training NV-0602-0001

Aerial
- Aerial Navigation MC-1606-0002
- Aerial Observer MC-1704-0005
- Photographer's Mate A (Aerial Cameraman) NV-1709-0001
- Tactical Aerial Observer MC-1704-0005

Aerographer's
- Aerographer's Mate, Class A

NV-1304-0004
Aerographer's Mate, Class B NV-1304-0005

Aerospace
Aerospace Medical Technician, Class C NV-0709-0003
Aerospace Physiology Technician NV-0709-0004

AFTA
Advanced First Term Avionics, Class B (AFTA) NV-1715-0556

AH-1J
AH-1J Electrical Organizational Maintenance NV-1704-0105
AH-1J Power Plant and Related Systems Organizational Maintenance NV-1704-0162
AH-1J Powertrain and Rotors Organizational Maintenance NV-1704-0153

Aids
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Aids to Navigation Construction CG-1722-0004
Aids to Navigation Mechanician CG-1715-0015
Aids to Navigation Officer Advanced CG-2205-0008
Aids to Navigation Officer Basic CG-2205-0009
Aids to Navigation School (Short Course for Officers) CG-2205-0003
Automated Aids-to-Navigation Electronics Maintenance CG-1715-0041
Basic Minor Aids To Navigation CG-1715-0042
Minor Aids to Navigation CG-2205-0002
Officers Advanced Aids to Navigation CG-2205-0008
Officers Basic Aids to Navigation CG-2205-0009
Officers Basic Aids to Navigation, Class O CG-2205-0009

AIMS
AIMS Mk XII IFF System Maintenance (Electronics Technician, Class C1) NV-1715-0812
AIMS Mk XII System Differences Equipment Maintenance, Class C-1 NV-1715-0813

Air
110 Ton R11 Centrifugal Air Conditioning Unit (York) NV-1701-0004
8th Class Air Observation School MC-1606-0003
A-4 Tactical Air Navigation (TACAN) AN/ARN-52(V) NV-1715-0288
Air Conditioning and Refrigeration, Class C NV-1701-0005
Air Conditioning and Refrigeration, Class C-1 NV-1701-0005
Air Conditioning Refrigerant 11 NV-1730-0006
Air Control/Antiaircraft Warfare Electronics Operator MC-1704-0002
Air Control/Antiair Warfare Electronics Operator MC-1704-0002
Air Control, Class O NV-1704-0011
Air Control Electronic Operator MC-2204-0031
Air Control Electronics Operator, Automated System MC-1704-0001
Air Controlman—Carrier Air Traffic Control Center Utilization—Operator NV-1704-0220
Air Controlman, Class A NV-1704-0004
Air Controlman, Class B NV-1704-0007
Air Controlman (Radar), Class A NV-1704-0010
Air Controlman T (Tower), Class A NV-1704-0008
Air Controlman W (Early Warning), Class A NV-1704-0009
Air Intercept Control, Class O NV-1704-0001
Air Intercept Controller NV-1704-0002
Air Intercept Controller Supervisor NV-1704-0005
Air Intercept Control (Requalification), Class O/C NV-1704-0115
Air Intercept Control (Supervisor), Class C/O NV-1704-0117
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Air Navigation MC-1606-0002
Air Observation MC-1606-0001
Air Observer MC-1704-0005
Air-Ocean Environment Course, Class C NV-1304-0002
Air Support Control Officer MC-1715-0078
Air Support Operations Operator MC-1715-0031
Air Traffic Management NV-0419-0013
Amphibious Tactical Air Control Party NV-2202-0006
AN/APX-76A Air/Air IFF Interrogator Set Intermediate Maintenance NV-1715-0434
Antisubmarine Air Control, Class C/O NV-2202-0052
Antisubmarine Air Control, Class O NV-2202-0052
Anti-Submarine Air Control (Officer and Enlisted) NV-2202-0052
Automatic Flight Control System (AN/ASW-15) And Air Data Computer (560T27-1) Organizational Maintenance NV-1715-0741
C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance NV-1715-0461
Centrifugal Air Conditioning Plant Operation and Maintenance NV-1701-0006
CVA/CVS Air Launched Weapons NV-0802-0009
CVA/CVS Air Launched Weapons General Ordnance NV-2202-0024
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E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) NV-1715-0460
E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance NV-1715-0478
F-4B/J Air Data Computer Set Intermediate Maintenance NV-1715-0552
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Fleet Officer and Fleet Enlisted Air Intelligence NV-2202-0022
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NV-2202-0059
P-3 Air Conditioning, Pressurization and Utilities Organizational Maintenance NV-1701-0001
R-11 Centrifugal 110 Ton Air Conditioning Combined Maintenance NV-1701-0004
RA-5C Air Data and Flight Reference Systems NV-1715-0454
RA-5C Air Data and Flight Reference Systems Organizational Maintenance NV-1715-0454
RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance NV-1715-0542
Refrigerant 11 Air Conditioning NV-1730-0006
Refrigeration and Air Conditioning (Operation and Maintenance) CG-1701-0001
Reserve Air Intelligence (RAI) NV-1606-0055
Submarine Refrigeration and Air Conditioning R-12 NV-1730-0003
Tactical Air Command Central (TACC) Technician MC-1715-0046
Tactical Air Control Party NV-2202-0006

Tactical Air Operations Central Repairman (TAOCR) MC-1715-0053
Tactical Air Operations Central (TAOC AN/TYQ-2) Repair MC-1715-0053
Tactical Air Operations Central (TAOC) Weapons Controller/Operator MC-2204-0013
Tactical Air Operations Central Technician MC-1715-0082

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Advanced Naval Flight Officer Training, Airborne Electronic Warfare Phase NV-1715-0569
Airborne Communicator NV-1409-0004
Airborne Early Warning, Class O NV-2202-0036
Airborne Early Warning/Electronics Countermeasures Evaluator, Class O NV-1715-0599
Airborne Electronic Warfare, Class O NV-1715-0002
Airborne Radar Intercept Operator NV-1715-0635
Airborne Radio Communications Operator (ARCO) NV-1715-0481
Airborne Radio Operator/Loadmaster MC-2204-0019
Airborne Radio Operators MC-1715-0032
Airborne Systems NV-1606-0061
Airborne Tactical Data System Operations, Class O NV-1402-0036
Basic Airborne Radio Communications Operator NV-1715-0481
E-2B Airborne Tactical Data Systems NV-1704-0226
E-2B Airborne Tactical Data Systems (ATDS) Operator Training NV-1715-0777
E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer) NV-1704-0225
Light Airborne Multipurpose System (LAMPS) Operator NV-2202-0034
Light Airborne Multi-Purpose System (LAMPS) Sensor Operator NV-1715-0767 NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Tactics NV-2202-0035
SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance NV-1715-0697

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A-4M Aircraft Mechanics NV-1704-0065
Aircraft Launch and Recovery Equipment (C-13 and C-13 Mod 1 Catapults), Class C NV-1704-0187
Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C NV-1704-0187
Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C NV-1710-0071
Aircraft Launch and Recovery Equipment, Class O NV-1704-0184
Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O NV-1704-0200
Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O NV-1704-0183
Aviation Boatswain's Mate E (Aircraft Launch and Recovery Equipment), Class A NV-1704-0042
Aviation Boatswain's Mate H (Aircraft Handling), Class A NV-1728-0014
C-2A Aircraft Familiarization (Pilots) NV-1704-0121
E-1B Aircraft Pilot Training NV-1606-0053
E-2A Aircraft Familiarization (Pilots) NV-1704-0054
E-2B Aircraft Pilot Training NV-1606-0054
Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance NV-1715-0014
F/RF-4B/J Aircraft Mechanics Organizational Maintenance NV-1704-0192
Marine Aircraft Launch and Recovery Equipment, Class A NV-1710-0061
Naval Aircraft Maintenance Management NV-1717-0011
P-3 Aircraft Familiarization, No. 2 NV-1704-0039
P-3 Aircraft Familiarization (Pilots) NV-1704-0039
RA-5C Aircraft Familiarization NV-1606-0022
RA-5C Aircraft Familiarization (Pilot/RAN) NV-1606-0022

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F-4B Aircraft Electrical System Organizational Maintenance NV-1704-0092
F-4J Aircraft Electrical System Organizational Maintenance NV-1704-0094
F/RF-4B Aircraft Electrical Systems Maintenance NV-1704-0104

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Aircraft Maintenance Nondestructive Inspection School, Class C NV-1704-0156
Aircraft Maintenance Officers, Class O NV-1704-0142
Aircraft Maintenance Radiography School, Class C NV-1704-0156
HC-131A Aircraft Maintenance Class C CG-1704-0006
HU-16E Aircraft Maintenance Class C CG-1704-0003

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A-4E/F/TA-4F Aircraft Mechanic Organizational Maintenance NV-1704-0023
C-130 Aircraft Mechanic Organizational Maintenance NV-1704-0237

Aircrew
Advanced Aircrew Survival Equipmentman NV-1704-0208
Aircrew Survival Equipmentman, Class A NV-1704-0234
Aircrew Survival Equipmentman, Class A1 NV-1704-0234
Aircrew Survival Equipmentman, Class C7 NV-1704-0208
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E-1B Naval Flight Officer and Aircrewman NV-1704-0233
VS CRAG Enlisted Aircrewman ASW Indoctrination and Equipments NV-2202-0039

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Air Defense Control Officer, Automated System (ADCOC) MC-1704-0006
Air Defense Officer MC-2204-0030

Airfield
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E-1B Airframe and Hydraulic Systems Organizational Maintenance NV-1704-0195
F-14A Airframe and Hydraulic Systems Specialist (Crew Leader) Organizational Maintenance NV-1704-0215
F-14A Airframe and Hydraulic Systems Technician (Crew Member) Organizational Maintenance NV-1704-0216
F-4B/J Airframe and Hydraulic Systems Maintenance NV-1704-0056
F-4B/J Airframe and Hydraulic Systems Organizational Maintenance NV-1704-0056
HH-52A Airframe and Powertrain, Class C CG-1704-0005
QH-50C Airframe and Related Systems Intermediate Maintenance NV-1704-0051
QH-50D Airframe and Related System Intermediate Maintenance NV-1704-0052
QH-50D Airframe, Powerplant and Related Systems Organizational Maintenance

NV-1704-0052

SH-3 Airframe and Hydraulic Systems Maintenance NV-1704-0124

UH-1E Airframe and Related Systems Intermediate Maintenance NV-1704-0043

UH-1E Airframe and Related Systems Organizational Maintenance NV-1704-0043

UH34D Airframe, Hydraulics and Flight Controls NV-1704-0064

Airframes

F-8 Airframes/Hydraulic Systems Organizational Maintenance NV-1704-0120

HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance NV-1704-0058

KC-130F Airframes and Hydraulics Organizational Maintenance NV-1704-0191

S-2D/E Airframes and Hydraulics Systems Maintenance NV-1704-0066

SH-3 Airframes and Hydraulic Systems Organizational Maintenance NV-1704-0047

UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance NV-1704-0057

Air-Ocean Environment

Air-Ocean Environment Course, Class C NV-1304-0002

Airspeed

P-3 Synchrophaser/True Airspeed Computer/Signal Lights Control Intermediate Maintenance NV-1715-0322

Air Traffic Control

Air Controlman—Carrier Air Traffic Control Center Utilization—Operator NV-1704-0220

Air Traffic Control Center Equipment Maintenance AN/TRN-28, Class C NV-1715-0771

Air Traffic Control Electronics Maintenance Officers, Class O NV-1715-0670

Air Traffic Control Equipment Maintenance Management NV-1715-0292

Air Traffic Control Officers, Class O NV-1704-0003

Carrier Air Traffic Control Center Controller Class C/O NV-1704-0012

Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-10, Class C NV-1715-0337

Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35A and AN/SPN-35, Class C NV-1715-0713

Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35, Class C NV-1715-0713

Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-41 NV-1715-0230

Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-44 NV-1715-0234

Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-6 and AN/SPN-12 (XN-4), Class C NV-1715-0715

Carrier Air Traffic Control Center Equipment Maintenance (AN/SPN-6), Class C NV-1715-0293

Carrier Air Traffic Control Center Equipment Maintenance, Radar Set AN/SPN-43, Class C NV-1715-0236

Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O NV-1715-0670

Marine Air Traffic Control Communications Repairman, Class C NV-1715-0799

Marine Air Traffic Control Maintenance Supervisor Training, Class C NV-1715-0742

Marine Air Traffic Control Navigational Aids Maintenance NV-1715-0037

Marine Air Traffic Control Navigational Aids Repairman, Class C NV-1715-0037

Marine Air Traffic Control Unit Auxiliary Equipment Maintenance, Class C NV-1715-0669

Marine Air Traffic Control Unit Equipment Maintenance, Class C NV-1715-0039

Marine Air Traffic Control Unit Maintenance Management, Class C NV-1715-0039 NV-1715-0166

Marine Air Traffic Control Unit Maintenance Management, Class O NV-1715-0039

Marine Air Traffic Control Unit Radar Maintenance, Class C NV-1715-0038

Marine Air Traffic Control Unit Radar Repairman, Class C NV-1715-0038

Alarm

Clutter Suppressor and Automatic Alarm for the AN/SPS-10 NV-1715-0433

Albanian

Albanian DD-0602-0001 DD-0602-0002 DD-0602-0003

ALCO 251-C

Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine NV-1712-0010

Alcohol

Drug and Alcohol Program Advisor NV-0799-0005

Navy Alcohol Safety Action Program (NASAP) NV-0799-0002

Alcoholism

Alcoholism Treatment Specialist (ATS) NV-0801-0008

Alfred

Cable Tester Alfred Model 9500 Intermediate Maintenance NV-1715-0397

Alignment

Alignment Group Mk 1 Mods 0 and 1, Class F-1 NV-1715-0891

Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance NV-1715-0014

Allison 501

Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1 NV-1703-0009

Alternating

Alternating Current Power Systems NV-1715-0490

Altimeter

AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0144

AN/APN-171 Radar Altimeter System Class C CG-1715-0026

AN/APN-171 (V) Radar Altimeter (High Level) Intermediate Maintenance NV-1715-0359

AN/APN-171(V) Radar Altimeter (Low Level) Intermediate Maintenance NV-1715-0493

RA-5C AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0479

RF-4B AN/APN-159 Radar Altimeter Maintenance NV-1715-0223

AM-2310/ASQ

E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance NV-1715-0375

E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance NV-1715-0746

Ammunition

Ammunition Handlers MC-0802-0003

Ammunition Officer MC-1717-0003

Ammunition Technician MC-0802-0004 MC-0802-0006

Ammunition Technician (Advanced) MC-0802-0005

Ammunition Technician (Basic) MC-0802-0006

Amphibian

Amphibian Tractor Crewman Training LVT3C, LVTP5 MC-1710-0005

Amphibian Vehicle Crewman MC-1708-0001

Amphibian Vehicle Officer MC-2204-0002

Amphibian Vehicle Repairman MC-1703-0011

Armored Amphibian Crewman Training,

LVTA5, LVTP5 MC-1710-0004
- Assault Amphibian Vehicle Crewman MC-1708-0001
- Tracked Vehicle Repairman Amphibian Tractor MC-1703-0011
- Tracked Vehicle Repairman (Amphibian Vehicle)(Basic) MC-1703-0011

Amphibious
- Amphibious Command Indoctrination NV-2202-0005
- Amphibious Intelligence Staff Officer NV-1606-0004
- Amphibious Junior Division Officer Indoctrination NV-2202-0090
- Amphibious Junior Officer Indoctrination NV-2202-0046
- Amphibious Planning NV-2202-0031
- Amphibious Reconnaissance NV-0803-0001
- Amphibious Staff Intelligence Officer (ASIO) NV-1606-0059
- Amphibious Support Information System Operator NV-1402-0034
- Amphibious Tactical Air Control Party NV-2202-0006
- Amphibious Transport/Cargo Ship Embarkation NV-0419-0005
- Amphibious Vehicle Company Officer MC-2204-0041
- Amphibious Vehicle Officer Orientation MC-2204-0025
- Amphibious Vehicle Unit Leader MC-1710-0010
- Amphibious Vehicle Unit Leaders (Enlisted) MC-1710-0010
- Amphibious Warfare MC-2204-0021
- Amphibious Warfare Indoctrination NV-2202-0045
- Assault Amphibious Vehicle Unit Leader MC-1710-0010
- Battalion Staff Officers (Amphibious Planning) NV-2202-0025
- Data Base Management—LCC Amphibious Support Information System Language—Operator NV-1402-0034
- Embarkation for Amphibious Operations NV-0419-0004
- Engineer Officer (Amphibious Ship) NV-1710-0059
- Enlisted Basic Amphibious Embarkation NV-0419-0003
- LCC Amphibious Support Information System Operator NV-1402-0034
- Naval Amphibious Communications NV-1404-0006

AN/AAS-18
- RF-4B AN/AAS-18 Infrared Reconnaissance Mapping System Intermediate Maintenance NV-1715-0225

AN/AAS-21
- RA-5C AN/AAS-21 Infrared Detecting Set Intermediate Maintenance NV-1715-0222

AN/ACQ-2
- E-2A AN/ACQ-2 and AN/ACQ-2A Data Terminal Sets Intermediate Maintenance NV-1715-0254

AN/AIC-14
- A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance NV-1715-0370
- A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance NV-1715-0370

AN/AJA-2
- Central Gyro Reference System (AN/AJA-2), Class C NV-1715-0708

AN/AJB-3
- A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator NV-1715-0615

AN/AJB-3/3A
- A-4 AN/AJB-3/3A Organizational Maintenance NV-1715-0294

AN/AJB-3A
- A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational) NV-1704-0098
- F-4B 20 KVA and AN/AJB-3A Electrical Organizational Maintenance NV-1715-0151
- F4B AN/AJB-3A Loft Bomb Release Computer Set NV-1715-0050

AN/AJB-7
- F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance NV-1715-0549

AN/AJM-32(V)
- AN/AJM-32(V) Intermediate Maintenance NV-1715-0069

AN/AKT-19A
- S-2D/E AN/AKT-19A Multi-Channel Jezebel Relay Intermediate Maintenance NV-1715-0243

AN/ALH-6
- AN/ALH-6 Recorder/Reproducer Intermediate Maintenance NV-1715-0073

AN/ALM-107
- AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance NV-1715-0053

AN/ALM-108
- AN/ALM-108 Receiver Test Console AN/ALQ-99 Receivers Intermediate Maintenance NV-1715-0054

AN/ALM-109
- AN/ALM-109 Test Console and AN/ALQ-99 Tracking Receivers and Control Modulators Intermediate Maintenance NV-1715-0052

Analog
- Analog Repair MC-1715-0023
- Digital, Analog, and Hybrid Computer Fundamentals NV-1402-0013
- Digital and Analog Computer Fundamentals NV-1402-0012
- Tactical Air Operations Central (TAOC) Analog Repair MC-1715-0023

AN/ALQ
- AN/ALQ-81/100 Countermeasures Set Maintenance NV-1715-0196
- AN/ALQ Countermeasures Set Intermediate Maintenance NV-1715-0196

AN/ALQ-108
- AN/ALQ-108 Countermeasure Set Intermediate Maintenance NV-1715-0285

AN/ALQ-35
- A3B, RA3B, EA3B AN/ALQ-35 DECM System Maintenance NV-1715-0525

AN/ALQ-51A
- AN/ALQ-51A Countermeasures Internal Set Maintenance NV-1715-0187
- AN/ALQ-51A Countermeasures Set NV-1715-0528

AN/ALQ-52(V)
- CH-46A AN/ALQ-52(V) Navigational TACAN Maintenance MC-1715-0071

AN/ALQ-55
- RA-5C AN/ALQ-55 DECM System NV-1715-0687

AN/ALQ-61
- RA-5C AN/ALQ-61 Countermeasure Set Shop Maintenance NV-1715-0367
- RA-5C AN/ALQ-61 Countermeasures Set Special Support Equipment NV-1715-0686
- RA-5C AN/ALQ-61 Passive Electronics Countermeasures Organizational Maintenance NV-1715-0366

AN/ALQ-76
- AN/ALQ-76 Intermediate Maintenance NV-1715-0057

AN/ALQ-76/86
- EA-6A AN/ALQ-76/86 ECM Systems Organizational Maintenance NV-1715-0198

AN/ALQ-81/100
- AN/ALQ-81/100 Countermeasures Set Maintenance NV-1715-0196

AN/ALQ-86
- AN/ALQ-86 Mid-Band Tuner Intermediate Maintenance NV-1715-0060

AN/ALQ-88
- F-4B/J-RF-4B AN/ALQ-88 Countermeasures Set Intermediate Maintenance NV-1715-0393

AN/ALQ-92
- AN/ALQ-92 Countermeasures Set Intermediate Maintenance NV-1715-0055
- EKA-3B AN/ALQ-92 Countermeasures Set Intermediate Maintenance NV-1715-0361

AN/ALQ-99
- AN/ALM-108 Receiver Test Console AN/ALQ-99 Receivers Intermediate Maintenance NV-1715-0054
- AN/ALM-109 Test Console and AN/ALQ-99 Tracking Receivers and Control Modulators Intermediate Maintenance NV-1715-0052
- AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance NV-1715-0053

AN/ALR-45
- AN/ALR-45 Countermeasures Receiving Set Intermediate Maintenance NV-1715-0933

AN/ALR-54
- AN/ALR-54 Countermeasures Receiving Set Intermediate Maintenance NV-1715-0775

Analysis
- Aviation Maintenance Data Analysis, Class C NV-1402-0018
- Data Analysis, Class C NV-1402-0018
- Data Analysis (Ship's 3-M System) Class C NV-1408-0005
- Data Processing Systems Analysis, Class C NV-1402-0001
- Data Processing Technician, Class C, Systems Analysis and Design NV-1402-0001
- Fundamental Analysis Techniques (P-3) NV-1715-0275
- Intermediate Maintenance Level Data Analysis, Class C NV-1115-0001
- Management Analysis, Class C NV-1115-0002
- Management Analysis, Class O NV-1115-0002
- Sound Analysis, Noise and Vibration Reduction (Enlisted) NV-1721-0010
- Systems Analysis and Design MC-1402-0003
- Systems Analysis and Design (Functional) MC-1402-0010
- Tactical Data Systems Analysis NV-1402-0042
- Terrain Analysis DD-1601-0004

Analyzer
- A-6 Search Radar Module Analyzer Test Console NV-1715-0530
- Atmosphere Analyzer, CAMS (Central Atmosphere Monitoring System) Mk 1 NV-1715-0496
- Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT), Class C NV-1715-0344
- RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance NV-1715-0238

Analyzers
- Mk V Atmosphere Analyzers NV-1715-0551

AN/APA-125A
- P-3 AN/APA-125A Indicator Intermediate Maintenance NV-1715-0172
- P-3 AN/APA-125A Indicator Maintenance, No. 48 NV-1715-0172

AN/APA-157
- F-4B AN/APA-157 Radar Set Group Intermediate Maintenance NV-1715-0257

AN/APA-89
- H-46 AN/APX-6B and AN/APA-89 Identification System Intermediate Maintenance NV-1715-0034

AN/APD-7
- AN/APD-7 Side Looking Radar Intermediate Maintenance NV-1715-0248
- RA-5C AN/APD-7 Side Looking Radar (SLR) Intermediate Maintenance NV-1715-0248
- RA-5C Side Looking Radar (SLR) AN/APD-7 (XN-1) Shop Maintenance NV-1715-0248

AN/APG-53A
- A-4C/E AN/APG-53A Radar Maintenance NV-1715-0280
- A-4C/E/F AN/APG-53A Radar Intermediate Maintenance NV-1715-0280

AN/APM 341 (V)
- AN/APM 341 (V) Doppler Test Set Intermediate Maintenance NV-1715-0360

AN/APN-120
- AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0144
- RA-5C AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0479

AN/APN-122
- AN/APN-122 Doppler Navigation System Maintenance NV-1715-0483
- AN/APN-122 Maintenance Training NV-1715-0483
- S-2D/E AN/APN-122 Doppler Radar Navigation System Maintenance NV-1715-0422

AN/APN-130
- AN/APN-130 Radar Navigation Set Intermediate Maintenance NV-1715-0553
- SH-3A AN/APN-130 Doppler Radar Navigation Maintenance NV-1715-0237
- UH-2A AN/APN-130 Radar Navigation Equipment NV-1715-0432

AN/APN-153(V)
- AN/APN-153(V) Doppler Radar Navigation System Intermediate Maintenance NV-1715-0507

AN/APN-154(V)
- AN/APN-154(V) Radar Beacon Intermediate Maintenance NV-1715-0584

AN/APN-159
- RF-4B AN/APN-159 Radar Altimeter Maintenance NV-1715-0223

AN/APN-171
- AN/APN-171 Radar Altimeter System Class C CG-1715-0026

AN/APN-171 (V)
- AN/APN-171 (V) Radar Altimeter (High Level) Intermediate Maintenance NV-1715-0359
- AN/APN-171(V) Radar Altimeter (Low Level) Intermediate Maintenance NV-1715-0493

AN/APN-175
- AN/APN-175 Doppler Radar, Navigation CG-1715-0027

AN/APN-180
- AN/APN-180 Loran A Navigation System Class C CG-1715-0028

AN/APN-182(V)
- AN/APN-182(V) Radar Navigational Set Intermediate Maintenance NV-1715-0583

AN/APN-187
- AN/APN-187 DVARS Intermediate Maintenance NV-1715-0299

AN/APN-190
- A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance NV-1715-0200

AN/APN-195
- AN/APN-195 Weather Radar Systems Class C CG-1715-0025

AN/APN-59
- KC-130F AN/APN-59 Radar Maintenance NV-1715-0036

AN/APN-59B
- KC-130F AN/APN-59B Radar Intermediate Maintenance NV-1715-0041

AN/APN-70
- P-3 AN/APN-70 Loran System Intermediate Maintenance NV-1715-0112

AN/APN-70B
- AN/APN-70B Loran System Intermediate Maintenance NV-1715-0112

AN/APQ-102
- RF-4B AN/APQ-102 Side Looking Radar Intermediate Maintenance NV-1715-0399

AN/APQ-112
- A-6A AN/APQ-112 Track Radar Test Console and Detailed Radar Intermediate Maintenance NV-1715-0435
- A-6 AN/APQ-112 Track Radar and

Associated Test Equipment Intermediate Maintenance NV-1715-0302

AN/APQ-116
A-7 AN/APQ-116 Radar Set Intermediate Maintenance NV-1715-0408

AN/APQ-124
F-8 AN/APQ-124 Radar Intermediate Maintenance NV-1715-0428

AN/APQ-124A
AN/APQ-124A Radar Set Intermediate Maintenance NV-1715-0428

AN/APQ-126
A-7E AN/APQ-126 Radar Set Intermediate Maintenance NV-1715-0260
AN/APQ-126 Radar Set Special Support Equipment Intermediate Maintenance NV-1715-0513

AN/APQ-72
F-4B AN/APQ-72 Radar Set Intermediate Maintenance NV-1715-0430

AN/APQ-83A
F8 AN/APQ-83A Radar Intermediate Maintenance NV-1715-0206

AN/APQ-83B
F-8 AN/APQ-83B Radar Intermediate Maintenance NV-1715-0214

AN/APQ-92
A-6A AN/APQ-92 Search Radar and Module Analyzer Test Bench Intermediate Maintenance NV-1715-0431
A-6 AN/APQ-92 Radar Antenna/Receiver and Associated Test Set Intermediate Maintenance NV-1715-0514
A-6 AN/APQ-92 Search Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0596

AN/APQ-94
F-8 AN/APQ-94 Radar Intermediate Maintenance NV-1715-0365

AN/APQ-99
RF-4B AN/APQ-99 Forward Looking Radar Intermediate Maintenance NV-1715-0415

AN/APR-30(V)
F-8 AN/APR-30(V) Radar Set Intermediate Maintenance NV-1715-0116

AN/APS-115
AN/APS-115 Search Radar System Intermediate Maintenance NV-1715-0516

AN/APS-20B/E
SP-2 AN/APS-20B/E Radar Set Intermediate Maintenance Course NV-1715-0671

AN/APS-20E
AN/APS-20E Maintenance Training NV-1715-0484
AN/APS-20E Radar System Maintenance NV-1715-0484

AN/APS-38B
AN/APS-38B Maintenance Training NV-1715-0485
AN/APS-38B Radar System Maintenance NV-1715-0485

AN/APS-80
P-3 AN/APS-80 Search Radar System Maintenance, 49 NV-1715-0695

AN/APS-82
AN/APS-82 Radar System Intermediate Maintenance NV-1715-0287
E-1B AN/APS-82 Radar System Maintenance NV-1715-0287

AN/APS-88
S-2D/E AN/APS-88/88A Radar Set Maintenance NV-1715-0438

AN/APS-96
E-2A AN/APS-96 Search Radar Intermediate Maintenance NV-1715-0672

AN/APX-6
P-3 AN/APX-6 Radar Identification System Intermediate Maintenance NV-1715-0118

AN/APX-64(V)
AN/APX-64(V) IFF Transponder Set Intermediate Maintenance NV-1715-0563

AN/APX-6B
H-46 AN/APX-6B and AN/APA-89 Identification System Intermediate Maintenance NV-1715-0034

AN/APX-7
P-3 AN/APX-7 Radar Recognition System Intermediate Maintenance NV-1715-0511

AN/APX-72
AN/APX-72 Maintenance, Class C-1 NV-1715-0811
AN/APX-72 Radar Indentification System Intermediate Maintenance NV-1715-0591
AN/APX-72 Series IFF Transponder System Maintenance NV-1715-0811
IFF AN/APX-72 and AN/UPX-17 Combined Maintenance NV-1715-0914
IFF Transponder AN/APX-72 and AN/UPX-17 Combined Maintenance, Class F1 NV-1715-0914

AN/APX-76A
AN/APX-76A Air/Air IFF Interrogator Set Intermediate Maintenance NV-1715-0434

AN/AQA-1
P-3 AN/AQA-1 Sono Indicator System Intermediate Maintenance NV-1715-0120

AN/AQA-5
P-3 AN/AQA-5 Sonar Data Recording System Maintenance, No. 46 NV-1715-0121

AN/AQA-7
AN/AQA-7 (V) Sonar Computer-Recorder Group Intermediate Maintenance NV-1715-0774

AN/AQA-7(V)3
S-2G AN/AQA-7(V)3 Sonar Computer Recorder Group Organizational Maintenance NV-1715-0258

AN/AQH-1
AN/AQH-1 Recorder/Reproducer Intermediate Maintenance NV-1715-0191

AN/AQH-4
AN/AQH-4 Sound Recorder/Reproducer Set Intermediate Maintenance NV-1715-0093

AN/AQS-10
SH-3A AN/AQS-10 Sonar Intermediate Maintenance NV-1715-0231
SH-3A AN/AQS-10 Sonar Maintenance NV-1715-0231

AN/AQS-13
Helicopter Aviation Antisubmarine Warfare Air Sonar Operator (AN/AQS-13) NV-2202-0080
SH-3 AN/AQS-13 Sonar Maintenance NV-1715-0386 NV-1715-0677

AN/AQS-13A
SH-3A/D AN/AQS-13A Sonar Intermediate Maintenance NV-1715-0747

AN/ARC-101
AN/ARC-101 Intermediate Maintenance NV-1715-0077

AN/ARC-105
RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance NV-1715-0368

AN/ARC-131
AN/ARC-131 Receiver Transmitter Intermediate Maintenance NV-1715-0188

AN/ARC-142
AN/ARC-142 H.F. Communications System Intermediate Maintenance NV-1715-0058

AN/ARC-143
AN/ARC-143 Communications System Intermediate Maintenance NV-1715-0059

AN/ARC-160
AN/ARC-160 Communications System CG-1715-0029
Class C Aviation Electronics Technician AN/ARC-160 CG-1715-0029

AN/ARC-27
AN/ARC-27 UHF Radio Set Intermediate Maintenance NV-1715-0351

AN/ARC-38A
AN/ARC-38A Maintenance Training NV-1715-0486
AN/ARC-38A Single Side Band Transceiver Intermediate Maintenance NV-1715-0094
AN/ARC-38A SSB Transceiver Maintenance NV-1715-0486

AN/ARC-51
AN/ARC-51, 51A and 51AX Communication Systems Intermediate Maintenance NV-1715-0710

AN/ARC-51A
Avionics Equipment, Class C, AN/ARC-51A CG-1715-0022

AN/ARC-52
AN/ARC-52 Radio Set Intermediate Maintenance NV-1715-0773
P-3 AN/ARC-52 UHF Communications Systems Maintenance, No. 21 NV-1715-0346

AN/ARC-54
AN/ARC-54 VHF Communication Set Intermediate Maintenance NV-1715-0098

AN/ARC-80
E-2A AN/ARC-80 Radio Set Intermediate Maintenance NV-1715-0190
E-2A Radio Set AN/ARC-80 Intermediate Maintenance NV-1715-0190

AN/ARC-94
AN/ARC-94 Class C and 490 T High Frequency (HF) Communications System and Antenna Coupler CG-1715-0019
AN/ARC-94 Radio Transceiver Intermediate Maintenance NV-1715-0100
AN/ARC-94 Single Side Band Transceiver Maintenance NV-1715-0489
Aviation Electronics Technician Class C AN/ARC-94 CG-1715-0019
Avionics Equipment, Class C, AN/ARC-94 CG-1715-0019
P-3 AN/ARC-94 Communications System Maintenance, No. 19 NV-1715-0374
RT 648/698 (AN/ARC-94/102/105/119/120) HF Transceiver Intermediate Maintenance NV-1715-0373
S-2E AN/ARC-94 HF Receiver-Transmitter System Maintenance NV-1715-0244

AN/ARN-21B/D
AN/ARN-21B/D TACAN Intermediate Maintenance NV-1715-0518

AN/ARN-52
F-8 AN/ARN-52 TACAN Intermediate Maintenance NV-1715-0204
P-3 AN/ARN-52 TACAN Maintenance, No. 30 NV-1715-0262

AN/ARN-52(V)
A-4 Tactical Air Navigation (TACAN) AN/ARN-52(V) NV-1715-0288
AN/ARN-52(V) TACAN Receiver Intermediate Maintenance NV-1715-0519
Avionics Equipment, Class C, AN/ARN-52(V) CG-1715-0021
S-2D/E AN/ARN-52(V) Navigational TACAN Maintenance NV-1715-0637
UH-2A/B Tactical Air Navigation (TACAN) AN/ARN-52(V) NV-1715-0761

AN/ARN-79
Avionics Equipment, Class C, AN/ARN-79 CG-1715-0020

AN/ARN-81
AN/ARN-81 Loran Intermediate Maintenance NV-1715-0247
C-2A AN/ARN-81 Loran Intermediate Maintenance NV-1715-0247

AN/ARN-86
F-4J AN/ARN-86 TACAN Intermediate Maintenance NV-1715-0409

AN/ARW-77
AN/ARW-77 Bullpup Guidance Control System NV-1715-0627

AN/ASA-13A
AN/ASA-13A Navigational Computer Group Intermediate Maintenance NV-1715-0326
SH-3A AN/ASA-13A Navigational Computer Maintenance NV-1715-0333
SH-3A AN/ASA-13A Navigation System Mantenance NV-1715-0241
SH-3 AN/ASA-13A Navigation System Intermediate Maintenance NV-1715-0241
UH-2A/B AN/ASA-13A Navigational Computer Group Intermediate Maintenance NV-1715-0326

AN/ASA-16
AN/ASA-16 Data Display Group Maintenance Training NV-1715-0488
P-3 AN/ASA-16 Display System Intermediate Maintenance NV-1715-0463
P-3 AN/ASA-16 Indicator Group Organizational Maintenance NV-1715-0115

AN/ASA-27
E-2A Computer Indicator (AN/ASA-27) Intermediate Maintenance NV-1715-0046

AN/ASA-47
AN/ASA-47 Doppler/Airmass Navigational Computer System Intermediate Maintenance NV-1715-0582

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A-5A RA-5C AN/ASB-12 Line and Shop Maintenance NV-1715-0521
A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment NV-1402-0044
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AN/ASB-1A
A3B AN/ASB-1A System Maintenance (Less Computer CP-66A) NV-1715-0281
AN/ASB-1A Radar Sub-System Intermediate Maintenance NV-1715-0226

AN/ASB-7
AN/ASB-7 Radar Sub-System Intermediate Maintenance NV-1715-0235

AN/ASH-20
AN/ASH-20 (V) Flight Recorder-Locator System Intermediate Maintenance NV-1704-0230

AN/ASM-118
A-6 Card Module Analyzer Test Console, AN/ASM-118, Intermediate Maintenance NV-1715-0336

AN/ASM-316
A-6 Memory Drum Test Console, AN/ASM-316 (XN-1) and Card and Module Tester Intermediate Maintenance NV-1715-0071

AN/ASM-33A
E-2A AN/ASM-33A In-Flight Performance Monitor Maintenance NV-1715-0471

AN/ASM-375
A-7E AN/ASM-375 Inertial Measurement System Test Set Intermediate Maintenance NV-1715-0146

AN/ASM-398
AN/ASM-398 Projected Map Display Set (PMDS) Intermediate Maintenance NV-1715-0529

AN/ASN-28
E-1B AN/ASN-28 Central Gyro Reference System Maintenance NV-1715-0164

AN/ASN-30
S-2D/E AN/ASN-30 Navigational Computer Display Unit and AN/ASQ-80 Coordinate Data Set System Maintenance. NV-1715-0331

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A-6A AN/ASN-31 Inertial Navigation Organizational Level Maintenance NV-1715-0476
A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance NV-1715-0475

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E-2A Inertial Navigation System AN/ASN-36 Maintenance NV-1715-0709

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P-3 AN/ASN-42 Navigational Computer Set Intermediate Level Maintenance, No. 16 NV-1715-0327
P-3 AN/ASN-42 Navigational Computer Set Intermediate Maintenance NV-1715-0327
P-3 AN/ASN-42 Navigational Computer Set Organizational Level Maintenance,

No. 15
NV-1715-0324

AN/ASN-46/56
RF-4B AN/ASN-46/56 Navigational Computer and Inertial Navigation System Intermediate Maintenance
NV-1715-0228

AN/ASN-46/74
RF-4B AN/ASN-46/74 Navigation Computer and Inertial Navigation System Intermediate Maintenance
NV-1715-0465

AN/ASN-50
AN/ASN-50 Attitude Heading Reference System Intermediate Maintenance
NV-1715-0534

AN/AYN-2, AN/ASN-50 Flight Director and Gyrocompass Systems Class C
CG-1715-0014

AN/ASN-55
RF-4B AN/ASN-55 Attitude Heading Reference System Maintenance
NV-1715-0468

AN/ASN-66B
EKA-3B AN/ASN-66B Navigational Computer Set Intermediate Maintenance
NV-1715-0505

AN/ASN-70
F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance
NV-1715-0549

AN/ASN-90
A-7 AN/ASN-90 Inertial Measurement Set Intermediate Maintenance
NV-1715-0388

AN/ASN-90 Inertial Measurement Set Intermediate Maintenance
NV-1715-0388

AN/ASN-91
A-7E AN/ASN-91 Tactical Computer Intermediate Maintenance
NV-1715-0070

AN/ASN-99
AN/ASN-99 Projected Map Display Set Intermediate Maintenance
NV-1715-0162

AN/ASQ-108
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication Navigation Identification (CNI) Line Troubleshooting Maintenance
NV-1715-0357

AN/ASQ-10A
AN/ASQ-10A Magnetic Anomaly Detecting Systems Intermediate Maintenance
NV-1715-0178

P-3 AN/ASQ-10A Magnetic Anomaly Detecting Systems Maintenance, No. 42
NV-1715-0178

AN/ASQ-17B
AN/ASQ-17B Integrated Electronics Central Intermediate Maintenance
NV-1715-0515

AN/ASQ-19
F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance
NV-1715-0394

AN/ASQ-52
E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance
NV-1715-0527

E-2A AN/ASQ-52 Data Communication System Special Support Equipment Intermediate
NV-1715-0382

E-2A Multi-Purpose Communications System (AN/ASQ-52) Intermediate Maintenance
NV-1715-0379

AN/ASQ-56A
AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance
NV-1715-0540

RA-5C AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance
NV-1715-0145

AN/ASQ-57
A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance
NV-1715-0370

A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance
NV-1715-0370

AN/ASQ-58
E-2A AN/ASQ-58 Integrated Electronic Central IFF—KY-308/ASQ and Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0377

E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0375

E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance
NV-1715-0746

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NV-1715-0376

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A-6 AN/ASQ-61 Ballistics Computer Intermediate Maintenance
NV-1715-0068

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NV-1715-0331

AN/ASQ-88
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication Navigation Identification (CNI) Line Troubleshooting Maintenance
NV-1715-0357

RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director
NV-1715-0562

AN/ASQ-90
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NV-1715-0240

AN/ASW-14A
E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance
NV-1715-0347

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Automatic Flight Control System (AN/ASW-15) And Air Data Computer (560T27-1) Organizational Maintenance
NV-1715-0741

C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance
NV-1715-0461

E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13)
NV-1715-0460

AN/ASW-26
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NV-1715-0807

A-7 AN/ASW-26/30 Automatic Flight Control System Intermediate Maintenance
NV-1715-0617

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A6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance
NV-1715-0159

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AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E)
NV-1704-0229

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AN/AWG-10 Receiver, Intermediate Maintenance
NV-1715-0350

F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance
NV-1715-0371

F-4J AN/AWG-10 Antenna Control and Missile Control Intermediate Maintenance
NV-1715-0611

F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance
NV-1715-0706

F-4J AN/AWG-10 Missile Control System (Enlisted) Familiarization
NV-1704-0231

F-4J AN/AWG-10 Receiver Intermediate Maintenance
NV-1715-0350

F-4J AN/AWG-10 Transmitter and Antenna Positioning Intermediate Maintenance
NV-1715-0594

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AN/AWM-55(V) Armament Station Control Unit Test Set Intermediate Maintenance
NV-1715-0174

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AN/BQG-4/4A
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AN/BQH-5(V)2
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CG-1715-0049
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AN/SPS-29C Radar Set Maintenance (Electronics Technician, Class C1)
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Electronics Technician, Class C, AN/SPS-37, 37A Radar Sets and AN/SPA-63 Countermeasures Receiving Group
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AN/SPS-39A
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NV-1715-0809
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NV-1715-0809

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AN/SPS-57 Maintenance and Repair, Class A
CG-1715-0054

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AN/SPS-64(V) -1,2,3,4 Radar
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AN/SPS-66
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NV-1715-0772

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NV-1715-0290

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AN/SQQ-23A
Sonar AN/SQQ-23A (PAIR) Organizational Maintenance
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AN/SQS-35(V)
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NV-1715-0858
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NV-1715-0320
Sonar AN/SQS-54B Organizational Maintenance
NV-1715-0320
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NV-1715-0320

AN/SRA-60
AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System
NV-1715-0249

AN/SRC-20
AN/SRC-20, AN/SRC-21 Radio Sets Maintenance (Electronics Technician, Class 1)
NV-1715-0088
AN/SRC-20, Operation and Maintenance, Enlisted
NV-1715-0089
AN/SRC-20 Radio Transceiver
NV-1715-0089
Electronics Technician, AN/SRC-20, AM/SRC-21 Radio Set Maintenance
NV-1715-0088
Electronics Technician, AN/URC-9, AN/SRC-20,AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance
NV-1715-0088
Radio Transceiver AN/SRC-20 Maintenance
NV-1715-0089
Transceiver AN/SRC-20 Combined Maintenance
NV-1715-0089

AN/SRC-21
AN/SRC-20, AN/SRC-21 Radio Sets

Maintenance (Electronics Technician, Class 1) NV-1715-0088
AN/SRC-21 Radio Set CG-1715-0045

AN/SRC-42(V)
AN/SRC-42(V) Radio Set CG-1715-0053

AN/SRN-12
Electronics Technician, Class C, AN/SRN-12 Omega Receiving Set Maintenance NV-1715-0201

AN/SRN-14
Electronics Technician, AN/SRN-14, Omega Receiver Maintenance, Class C NV-1715-0590

AN/SRN-15
AN/SRN-15 TACAN Distance Azimuth Measuring Equipment (DAME) Maintenance (Electronics Technician, Class C1) NV-1715-0175

AN/SRN-18
AN/SRN-18 Radio Satellite Navigation Set Maintenance, Class C-1 NV-1715-0810

AN/SRN-9
AN/SRN-9 Satellite Radio Navigation Set Maintenance (Electronics Technician, Class C1) NV-1715-0099
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AN/SRN-9A, Radio Navigation Set, Operation and Maintenance NV-1715-0441
Satellite Receiver AN/SRN-9A, BRN-6 Combined Maintenance, Class F1 NV-1715-0492
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QH-50D Target Control System AN/SRW-4B Intermediate Maintenance NV-1715-0417

AN/SSM-5
Electronics Technician, Class C, AN/SSM-5 Monitor Test Set Maintenance NV-1715-0008

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A-6 AN/APQ-92 Radar Antenna/Receiver and Associated Test Set Intermediate Maintenance NV-1715-0514
AN/ARC-94 Class C and 490 T High Frequency (HF) Communications System and Antenna Coupler CG-1715-0019
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Antenna Group AN/BRA-16 Functional Checkout and Maintenance NV-1715-0161
Antenna Multicoupler AN/BRA-16 Combined Maintenance NV-1715-0161
Antenna Series (CU-1441/BRR Multicoupler) NV-1715-0132
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AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group CG-1715-0058
AN/URT-23(V) Radio Transmitting Set and AN/URA-38 Antenna Coupler Maintenance, Class C NV-1715-0056
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Coupler, Antenna CU-1441/BRR Checkout and Maintenance NV-1715-0132
Electronics Technician, AN/URC-9, AN/SRC-20,AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance NV-1715-0088
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Communication Central, AN/TGC-37, system Maintenance MC-1715-0006
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Light Antiaircraft Artillery (AAA) Fire Control Repair MC-1715-0034
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Antisubmarine
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Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P3C NV-1606-0028
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D) NV-1715-0555
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers, P3C NV-1304-0003
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D) NV-2202-0032
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C NV-2202-0021
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Aviation Antisubmarine Warfare (AASW) operator, Class A NV-1715-0536
Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P3C NV-1715-0696
Aviation Antisubmarine Warfare (AASW) Technician, Class A NV-1715-0154
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Carrier Aviation Antisubmarine Warfare (AASW) Acoustic Operator (Passive) NV-2202-0096
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Helicopter Aviation Antisubmarine Warfare Air Sonar Operator (AN/AQS-13) NV-2202-0080
Helicopter (HS) Antisubmarine Warfare Operator NV-2202-0080
Intermediate Aviation Antisubmarine Warfare (AASW) Technician, Class B NV-1715-0167
Nonacoustic Antisubmarine Operator Transition P3C NV-1715-0679
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Antitank
Antitank Assaultman MC-2204-0049

AN/TPQ-10
Aviation Fire Control Repair, AN/TPQ-10 (AFC) MC-1715-0033

AN/TPX-42A(V) 5
Electronics Maintenance Course Interrogator Set AN/TPX-42A(V) 5, Class C NV-1715-0566

AN/TRN-28
Air Traffic Control Center Equipment Maintenance AN/TRN-28, Class C NV-1715-0771

AN/TTC-28
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AN/TYA-11
Communications Central Group AN/TYA-11 Technician MC-1715-0030

AN/TYQ-1
Tactical Air Command Central (TACC AN/TYQ-1) Repair MC-1715-0020

AN/TYQ-2
Tactical Air Operations Central (TAOC AN/TYQ-2) Repair MC-1715-0053
TAOC (AN/TYQ-2) Technician MC-1715-0082

AN/TYQ-3
Tactical Data Communications Central (TDCC AN/TYQ-3) Technician

MC-1715-0026

AN/UCC-1
AN/UCC-1 Series Telegraph Terminal Maintenance (Electronics Technician, Class C1) NV-1715-0009

AN/UGA-3A
AN/UGA-3A Maintenance NV-1715-0107

AN/UGC-20/25
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AN/UGC-20A/25A
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AN/UGR-14
Electronics Technician Class C, AN/FGC-73 Teletypewriter Routing Set and AN/UGR-14 Inktronic Page Printer NV-1715-0019

AN/ULM-1
RA-5C Semi-Automatic Test Equipment, Programmer, System Analyzer and Countermeasures Test Bench AN/ULM-1 Intermediate Maintenance NV-1715-0176

AN/UPN-12
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Electronics Technician, Class C, AN/UPN-12 Loran Receiving Set Maintenance, Class F-1 NV-1715-0814

AN/UPN-23
AN/UPN-23 Loran A Receiver, Class A CG-1715-0055

AN/UPR-2
AN/UPR-2 Ionospheric Sounder Set Maintenance (Electronics Technician, Class C1) NV-1715-0004

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IFF AN/APX-72 and AN/UPX-17 Combined Maintenance NV-1715-0914
IFF Transponder AN/APX-72 and AN/UPX-17 Combined Maintenance, Class F1 NV-1715-0914

AN/UQN-4
AN/UQN-4 Echo Sounder Maintenance NV-1715-0425
AN/UQN-4 Sonar Sounding Set Maintenance NV-1715-0425
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AN/URA-38
AN/URT-23 and AN/URA-38 CG-1715-0058
AN/URT-23 Radio Transmitter With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1) NV-1715-0056
AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group CG-1715-0058
AN/URT-23(V) Radio Transmitting Set and AN/URA-38 Antenna Coupler Maintenance, Class C NV-1715-0056

AN/URC-32
Transceiver AN/URC-32 Maintenance (Enlisted) NV-1715-0229

AN/URC-58
Electronics Technician (Class C) AN/URC-58, AN/VRC-46 Radio Sets Maintenance NV-1715-0095

AN/URC-77
AN/URC-77 Maintenance and Repair CG-1715-0052

AN/URC-9
Electronics Technician, AN/URC-9, AN/SRC-20,AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance NV-1715-0088

AN/URN-20
AN/URN-20 TACAN Maintenance (Electronics Technician, Class C1) NV-1715-0193
Electronics Technician AN/URN-20 Radio Set Class C Maintenance NV-1715-0193

AN/URT-23
AN/URT-23 and AN/URA-38 CG-1715-0058
AN/URT-23 Radio Transmitter With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1) NV-1715-0056
AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group CG-1715-0058
AN/URT-23(V) Radio Transmitting Set and AN/URA-38 Antenna Coupler Maintenance, Class C NV-1715-0056

AN/URT-23(V)
AN/URT-23(V) Radio Transmitter Maintenance NV-1715-0531

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AN/USQ-20 Basic Programming NV-1402-0002
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AN/UXH-2B
Electronics Technician, Class C, AN/UXH-2B Facsimile Recording Equipment Maintenance NV-1715-0012

AN/UYK-5(V)
AN/UYK-5(V) (3-M System) Operator, Class C NV-1402-0028
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AN/UYK-7
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AN/VCC-2
AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System NV-1715-0249
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AN/VRC-46
AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System NV-1715-0249
Electronics Technician (Class C) AN/URC-58, AN/VRC-46 Radio Sets Maintenance NV-1715-0095

AN/WIC-2
Integrated Announcing System AN/WIC-2 Combined Maintenance NV-1715-0319

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AN/WLR-11A Maintenance Training, Class C-1 NV-1715-0841
Countermeasures Receiving Set AN/WLR-11A NV-1715-0841

AN/WLR-1C
Countermeasures Receiving Set AN/WLR-1C (IV) Class F-1 NV-1715-0817

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Electronic Surveillance Maintenance (ESM) AN/WLR-6 Basic Operator NV-1715-0500
Electronic Surveillance Maintenance (ESM) AN/WLR-6 Combined Maintenance NV-1715-0501

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Electronic Surveillance Maintenace (ESM) AN/WLR-8(V)2 Combined Maintenance NV-1715-0469

AN/WLR-9A/12
Sonar Receiving Set AN/WLR-9A/12 Combined Maintenance NV-1715-0265

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Loran 'C' AN/WPN Refresher Maintenance Class F1 NV-1715-0899

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AN/WPN-4 Maintenance NV-1715-0390

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AN/WRA-3 Combined Maintenance NV-1715-0251

Special Communications Equipment AN/WRA-3 Maintenance NV-1715-0251

AN/WRC-1
AN/WRC-1 Radio Set Maintenance (Electronics Technician, Class C1) NV-1715-0010
Radio Transceiver AN/WRC-1 Family Equipment NV-1715-0531

AN/WRN-5
AN/WRN-5 Combined Maintenance NV-1715-0913
Loran AN/WRN-5 Combined Maintenance NV-1715-0913
Satellite Navigation System AN/WRN-5 NV-1715-0913
Satellite Receiver AN/WRN-5 Combined Maintenance, Class C-1 NV-1715-0913

AN/WRR-2
Electronics Technician Class C, AN/WRT-2 and AN/WRR-2 NV-1715-0011

AN/WRT-2
AN/WRT-2 Radio Transmitter Maintenance (Electronics Technician, Class C1) NV-1715-0011
Electronics Technician Class C, AN/WRT-2 and AN/WRR-2 NV-1715-0011

AN/WRT-4
Special Communications Equipment AN/WRT-4 Maintenance NV-1715-0250
Transmitter AN/WRT-4 Combined Maintenance NV-1715-0250

AN/WSC-3
AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group NV-1715-0876

AN/WSC-5
AN/WSC-5 Tactical Satellite Communications System Maintenance NV-1715-0877
Tactical Satellite Communications Equipment Maintenance AN/WSC-5(V) NV-1715-0877

AN/WYQ-1
AN/BRD-7, AN/WYQ-1, AN/BRQ-1 Basic Operator, Class C1 NV-1715-0445
AN/WYQ-1 and AN/BRQ-1 Combined Maintenance Class C-1 NV-1715-0494
Electronic Surveillance Maintenance (ESM) AN/WYQ-1, AN-BRQ-1 Combined Maintenance NV-1715-0494

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APA-56 Indicator Assembly NV-1715-0707

Appliance
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Orthopedic Appliance Technician, Class C NV-0704-0001

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Ground Controlled Approach Electronics Maintenance, Radar Set AN/CPN-4A, Class C NV-1715-0079
Ground Controlled Approach Electronics Maintenance (Radar Set AN/FPN-36), Class C NV-1715-0217
Ground Controlled Approach Electronics Maintenance, Radar Set AN/MPN-5, Class C NV-1715-0080
Ground Controlled Approach Electronics Technician, AN/MPN-5, Class C NV-1715-0080
Ground Controlled Approach Electronics Technician, Radar Set AN/MPN-1B, Class C NV-1715-0078
Ground Controlled Approach Engineman, Class C, AN/MPN-5 NV-1715-0081
Ground Controlled Approach Maintenance (Engineman), Class C NV-1715-0081
Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C NV-1715-0081
Ground Controlled Approach Operator, Class C NV-1715-0122
Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O NV-1715-0670

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S-2D/E AQA-4(V) Indicator Group System Intermediate Maintenance NV-1715-0561

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DD-0602-0002
DD-0602-0003
DD-0602-0004
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DD-0602-0009

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ARC-160 Communications System CG-1715-0029

ARC-97
E-1B ARC-97 Radio Repeater System Maintenance NV-1715-0195

ARCO
Airborne Radio Communications Operator (ARCO) NV-1715-0481

Armament
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A-6A Armament Systems Organizational Maintenance NV-1704-0167
A-7 Armament Systems Maintenance NV-1704-0084
A-7E Armament System Maintenance NV-1704-0173
A-7E C-8185 Armament Station Control Unit Intermediate Maintenance NV-1704-0203
AN/AWM-55(V) Armament Station Control Unit Test Set Intermediate Maintenance NV-1715-0174
Aviation Fire Control Technician F(Armament Control), Class A NV-1715-0140
F-14 Armament Systems Maintenance Technician (Crew Member) Organizational Maintenance NV-1704-0221
F-4B/J Armament, Missile and Weapons Control System Maintenance NV-1715-0632
F-4B/J Armament, Missile and Weapons Control System Organizational Maintenance NV-1715-0632
F-8 Armament System Organizational Maintenance NV-1715-0181
RA-5C Armament Intermediate Maintenance NV-1704-0166
Strike Armament Intermediate Maintenance Repair NV-1715-0571

Armed
Armed Forces Staff College DD-0326-0001

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MC-2204-0020
Infantry Weapons Armorer (Basic) MC-2204-0052

Armorers
Infantry Weapons Armorers (Advanced) MC-2204-0044

Arms
Small Arms Instructor CG-1408-0001
Supporting Arms Coordination NV-2202-0055
Supporting Arms Coordinator NV-2202-0055

Arresting
Catapult and Arresting Gear, Class C NV-1710-0009
Catapult, Arresting Gear and Visual Landing Aids (C-13 Catapult and Mk-7 Arresting Gear), Class C NV-1710-0006
Catapult, Arresting Gear, and Visual Landing Aids (C-7/C-11 Catapults and Mk-7 Arresting Gear), Class C NV-1710-0005
Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C NV-1710-0006
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CVS Catapult, Arresting Gear, and Visual Landing Aids, Class C.

NV-1710-0007

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- Artillery Electronic Equipment Repair MC-1715-0003
- Artillery Electronic Equipment Repairman MC-1715-0003
- Artillery Officer Orientation MC-2204-0045
- Artillery Scout Observer MC-2204-0032
- Artillery Weapons Repairman MC-1601-0005, MC-1710-0011, MC-2204-0022
- Artillery Weapons Repairman (Advanced) MC-1710-0027
- Artillery Weapons Repairman (Basic) MC-1710-0011
- Field Artillery Batteryman MC-2204-0010
- Field Artillery Fire Controlman MC-2204-0033
- Field Artillery Operations Man MC-2204-0017
- Light Antiaircraft Artillery (AAA) Fire Control Repair MC-1715-0034, MC-1715-0036
- Medium Antiaircraft Artillery (AAA) Fire Control Repair MC-1715-0056
- Tracked Vehicle Repairman Self-Propelled Artillery MC-1703-0006
- Tracked Vehicle Repairman (Self-Propelled Artillery), Basic MC-1703-0006

ASA-16
- P-3 ASA-16 System Maintenance, No. 50 NV-1715-0477

ASB-7
- A3B ASB-7 Radar Stabilization and Auxiliary Subsystems Maintenance (Less CP-209 and AN/APN-122) NV-1715-0363

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- Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore NV-0801-0005
- Supply Ashore Refresher NV-1405-0011

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- Terrier ASMD-70 55B Radar Update NV-1715-0801

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- AN/SQS-23, 23A, 23B, 23C Maintenance and ASPECT NV-1715-0277
- Sonar AN/SQS-39 Through 46 and Aspect Maintenance NV-1715-0783

Asphalt
- EO"C" Asphalt NV-1710-0062

ASR
- Model 28 ASR Teletype Maintenance NV-1715-0662

ASROC
- ASROC Launching Group Mk 16 NV-1715-0770
- Asroc Missile Assembly and Maintenance NV-1715-0630
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Assault
- Assault Amphibian Vehicle Crewman MC-1708-0001
- Assault Boat Coxswain NV-1708-0006
- Assault Boat Engineer NV-1712-0009, NV-1712-0016
- River Assault Craft Training NV-1708-0001

Assaultman
- Antitank Assaultman MC-2204-0049

Assembler
- IBM System 360 OS Assembler Language MC-1402-0031
- Marine Assembler Language Programming MC-1402-0040
- System 360 Operating System—Assembler Language Programming Phase MC-1402-0008

Assembly
- Asroc Missile Assembly and Maintenance NV-1715-0630
- Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language) NV-1402-0033

Assistance
- Defense Security Assistance Management Overseas DD-0327-0001

ASTOR
- ASTOR/SUBROC Operator Maintenance NV-2202-0084

ASW
- ASW Tactics—First Tour VP Pilot NV-2202-0043
- ASW Tactics—VS Pilot/Naval Flight Officer NV-2202-0042
- P-3 Anti-Submarine Warfare (ASW) Systems Organizational Maintenance NV-1715-0268
- Prospective ASW Flight Instructor (S-2 Type Aircraft) NV-1606-0020
- VP CRAG Enlisted Aircrewman ASW Indoctrination and Equipments NV-2202-0044
- VP CRAG Pilot ASW Indoctrination, Equipments and Tactics NV-2202-0040
- VP CRAG Tactical Coordinator ASW Indoctrination, Equipments and Tactics NV-2202-0041
- VS CRAG Enlisted Aircrewman ASW Indoctrination and Equipments NV-2202-0039
- VS CRAG Pilot ASW Indoctrination, Equipments, and Tactics—S-2D Aircraft NV-2202-0043
- VS CRAG Pilot ASW Indoctrination, Equipments, and Tactics—S-2E Aircraft NV-2202-0042

AT
- Aviation Electronics Technician (AT) Communications, Class A CG-1405-0001

AT/AQ
- A-3 Related Avionics System (AT/AQ) Organizational Level Maintenance NV-1715-0279
- A-3 Related Avionics System (AT/AQ) Organizational Maintenance NV-1715-0279

ATDS
- E-2B Airborne Tactical Data Systems (ATDS) Operator Training NV-1715-0777
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- Atmosphere Analyzer, CAMS (Central Atmosphere Monitoring System) Mk 1 NV-1715-0496
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- A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator NV-1715-0615
- A-7A/B Attitude Heading and Reference System Intermediate Maintenance NV-1721-0006
- AN/ASN-50 Attitude Heading Reference System Intermediate Maintenance NV-1715-0534
- EA-6B Course Attitude Data Transmitter Intermediate Maintenance NV-1715-0192
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- A-3 S-5 Auto Pilot Maintenance NV-1704-0198
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AUTODIN
- AUTODIN/DSTE/DSSCS/Mode V Maintenance, Class C1 NV-1715-0284

Automated
- Air Control Electronics Operator, Automated System MC-1704-0001
- Air Defense Control Officer, Automated System (ADCOC) MC-1704-0006
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Automated Supply and Accounting Systems Afloat (AN/UYK-5(V)) NV-1401-0003

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A-6A Automatic Flight Control System Intermediate Maintenance NV-1715-0699

A-7A/B/E AN/ASW-26/30 Automatic Flight Control System Organizational Maintenance NV-1715-0807

A-7 AN/ASW-26/30 Automatic Flight Control System Intermediate Maintenance NV-1715-0617

A-7 Automatic Flight Control System Organizational Maintenance NV-1715-0807

Automatic Combustion Control Maintenance NV-1710-0011

Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1 NV-1715-0735

Automatic Telephones, Class C NV-1715-0546

Dynalec Automatic Telephone System Maintenance, Class C1 NV-1404-0007

F-8 Automatic Flight Control System Intermediate Maintenance NV-1715-0737

F/RF-4B/J Automatic Flight Control Systems Intermediate Maintenance NV-1715-0613

H-53 Automatic Flight Controls Systems Intermediate Maintenance NV-1715-0738

H-53 Automatic Flight Control System Organizational Maintenance NV-1704-0133

HH-2D/SH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1704-0205

KC-130-F S-5 Automatic Pilot and Related Instruments Intermediate Maintenance NV-1715-0736

P-3 PB20N Automatic Flight Control System Maintenance, No. 13 NV-1715-0600

SH-3A Automatic Stabilization Equipment Maintenance NV-1715-0616

SH-3 Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0621

SH-3 Automatic Stabilization Equipment Organizational Maintenance NV-1704-0096

Steam Plant Automatic Controls Maintenance (Bailey Meter) NV-1710-0074

Steam Plant Automatic Controls Maintenance (General Regulator) NV-1710-0072

Steam Plant Automatic Controls Maintenance (Hagan) NV-1710-0073

Stromberg Carlson Automatic Telephone XY Switching System Maintenance, Class C1 NV-1715-0661

UH-2A/B Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0464

UH-2A/B Automatic Stabilization Equipment Maintenance NV-1715-0464

UH-2A/B Automatic Stabilization Equipment Organizational Maintenance NV-1715-0464

UH-2C Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610

UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610

UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Organizational Maintenance NV-1715-0683

Automotive

Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership MC-1703-0012

Automotive Maintenance Officer MC-1703-0014

Automotive Mechanic MC-1703-0009

Automotive Mechanics MC-1703-0009

Automotive Organizational Maintenance MC-1703-0008

Automotive Organizational Mechanics MC-1703-0008

Automotive Preventive Maintenance MC-1703-0007

Basic Automotive Mechanic MC-1703-0009

CM"C" Automotive Electrical Maintenance NV-1703-0001

Autopilot

P-3 PB-20N Autopilot System Intermediate Maintenance NV-1715-0462

Auxiliary

Auxiliary Equipment Package NV-1730-0002

Aviation

Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P3C NV-1606-0028

Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D) NV-1715-0555

Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers, P3C NV-1304-0003

Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D) NV-2202-0032

Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C NV-2202-0021

Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P3C NV-1715-0696

Aviation Antisubmarine Warfare (AASW) operator, Class A NV-1715-0536

Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P3C NV-1715-0696

Aviation Boatswain's Mate E (Aircraft Launch and Recovery Equipment), Class A NV-1704-0042

Aviation Boatswain's Mate E (Equipments), Class A NV-1704-0042

Aviation Boatswain's Mate F (Fuels), Class A NV-1728-0005

Aviation Boatswain's Mate G Gasoline School, Class A NV-1722-0001

Aviation Boatswain's Mate H (Aircraft Handling), Class A NV-1728-0014

Aviation Boatswain's Mate H (Handling), Class A NV-1728-0014

Aviation Boatswain's Mate U (Utility), Class A NV-1728-0013

Aviation Corrosion Control by Correspondence CG-1704-0016

Aviation Crash Crewman Class C NV-1728-0006

Aviation Electrician Conversion NV-1704-0068
NV-1704-0070

Aviation Electrician Mate, First Class, by Correspondence CG-1714-0004

Aviation Electrician Mate, Second Class, by Correspondence CG-1714-0003

Aviation Electrician's Mate, Class A NV-1704-0068

Aviation Electrician's Mate, Class B NV-1715-0134

Aviation Electrician's Mate, Class B (Advanced) NV-1715-0134

Aviation Electrician's Mate, Class B (Intermediate) NV-1715-0135

Aviation Electrician's Mate, First Class, by Correspondence CG-1714-0004

Aviation Electrician's Mate I (Instrument), Class A NV-1704-0068

Aviation Electrician's Mate M (Electrician), Class A NV-1704-0070

Aviation Electrician's Mate, Second Class, by Correspondence CG-1714-0003

Aviation Electronics Technician/Aviation Fire Control Technician, Advanced Class B NV-1715-0137

Aviation Electronics Technician, Class B NV-1715-0137

Aviation Electronics Technician Class C AN/ARC-94 CG-1715-0019

Aviation Electronics Technician, First Class, by Correspondence CG-1715-0032

Aviation Electronics Technician, Second Class, by Correspondence CG-1715-0031

Aviation Fire Control Repair MC-1715-0033
Aviation Fire Control Repair, AN/TPQ-10 (AFC) MC-1715-0033
Aviation Fire Control Technician B (Bomb Director), Class A NV-1715-0141
Aviation Fire Control Technician (B) Conversion (Class C) NV-1715-0139
Aviation Fire Control Technician, Class A NV-1715-0537
Aviation Fire Control Technician F(Armament Control), Class A NV-1715-0140
Aviation Fire Control Technician (F) Conversion (Class C) NV-1715-0138
Aviation Fleet Preparatory Course I and II NV-1606-0058
Aviation Fleet Preparatory Course I and II, Class P NV-1606-0051
Aviation Fuel Systems, Class C NV-1704-0186 NV-1704-0199
Aviation Indoctrination, Limited Duty Officer (LDO) NV-2202-0087
Aviation Limited Duty Officer (LDO) Indoctrination NV-1606-0044
Aviation Machinist Mate, First Class, by Correspondence CG-1704-0008
Aviation Machinist Mate, Second Class, by Correspondence CG-1704-0007
Aviation Machinist's Mate CG-1704-0001
Aviation Machinist's Mate Class A CG-1704-0001
Aviation Machinist's Mate, First Class, by Correspondence CG-1704-0008
Aviation Machinist's Mate H (Helicopter), Class A NV-1704-0238
Aviation Machinist's Mate J (Jet Engine), Class A NV-1704-0148
Aviation Machinist's Mate J (Jet Engine), Class B NV-1704-0159
Aviation Machinist's Mate J (Turbo-Jet), (Class A) NV-1704-0148
Aviation Machinist's Mate R(Reciprocating), Class A NV-1704-0149
Aviation Machinist's Mate R (Reciprocating), Class B NV-1704-0158
Aviation Machinist's Mate, Second Class, by Correspondence CG-1704-0007
Aviation Maintenance Administration, Class A NV-1409-0003
Aviation Maintenance Administrationman, Class A NV-1409-0003
Aviation Maintenance Control Administration NV-1717-0008
Aviation Maintenance Data Analysis, Class C NV-1402-0018
Aviation Management NV-1717-0001
Aviation Mechanical Fundamentals, Class A NV-1704-0157
Aviation Mechanical Fundamentals, Class P NV-1704-0157
Aviation Medicine Technic NV-0709-0003
Aviation Medicine Technician, Class C NV-0709-0003
Aviation Officer Candidate NV-2202-0033
Aviation Ordnanceman, Class A NV-1715-0648
Aviation Ordnanceman, Class B NV-1717-0010
Aviation Ordnanceman (Turret), Class A NV-1714-0007
Aviation Ordnanceman (Utility), Class A NV-1714-0006
Aviation Ordnance Officers, Class O NV-1715-0744
Aviation Ordnance Officers (Management), Class O (AOM(0)) NV-1405-0010
Aviation Radar Repair MC-1715-0055
Aviation Radar Repair (A) MC-1715-0055
Aviation Radar Repair (B) MC-1715-0052
Aviation Radar Repair (C) MC-1715-0059
Aviation Radar Repair (D) MC-1715-0054
Aviation Radar Repairman (B) MC-1715-0052
Aviation Radar Technician MC-1715-0058
Aviation Radio Repair MC-1715-0011 MC-1715-0041
Aviation Radio Technician MC-1715-0047
Aviation Reserve Officer Candidate (AVROC) NV-2202-0088
Aviation Squadron Electronic Warfare (EW) Officer (EWO), Class A2 NV-1715-0831
Aviation Storekeeper, Class A NV-1405-0004
Aviation Storekeeper, Class B NV-1408-0019
Aviation Structural Mechanic, Class B NV-1704-0239
Aviation Structural Mechanic E (Safety Equipment), Class A NV-1704-0130
Aviation Structural Mechanic E (Safety Equipment), Class B NV-1704-0116
Aviation Structural Mechanic, First Class, by Correspondence CG-1704-0015
Aviation Structural Mechanic H (Hydraulics), Class A NV-1704-0128
Aviation Structural Mechanic H (Hydraulics), Class B NV-1704-0087
Aviation Structural Mechanic, Second Class, by Correspondence CG-1704-0013
Aviation Structural Mechanic S (Structures), Class A NV-1704-0132
Aviation Structural Mechanic S (Structures, Class B NV-1704-0177
Aviation Structural Mechanic S (Structures), Class C7 NV-1704-0177
Aviation Supply Enlisted Course MC-1405-0001
Aviation Supply Officer MC-1405-0018
Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance NV-1715-0541
Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance NV-1715-0700
Aviation Support Equipment Technician, Class A (Electrical Specialty) NV-1704-0111
Aviation Survivalman, First Class, by Correspondence CG-1704-0019
Aviation Survivalman, Second Class, by Correspondence CG-1704-0018
Basic Naval Aviation Officer NV-1606-0044
Carrier Aviation Antisubmarine Warfare (AASW) Acoustic Operator (Passive) NV-2202-0096
Class A Aviation Guided Missileman NV-1715-0629
E-2A Aviation Electrician Organizational Maintenance NV-1704-0081
E-2B/C-2A Aviation Electrician Organizational Maintenance NV-1704-0224
Flight Preparation, Naval Aviation Cadet and Aviation Officer Candidate NV-1606-0046
Helicopter Aviation Antisubmarine Warfare Air Sonar Operator (AN/AQS-13) NV-2202-0080
Intermediate Aviation Antisubmarine Warfare (AASW) Technician, Class B NV-1715-0167
Intermediate Aviation Fire Control Technician, Class B NV-1715-0646
Joint Aviation Supply and Maintenance Material Management NV-1405-0009
Marine Aviation Operations Clerical, Class C NV-1409-0008
Marine Aviation Supply, Class C NV-1405-0008
Marine Aviation Supply (Manual), Class C NV-1409-0005

- Marine Aviation Supply (Mechanized), Class C NV-1405-0007
- Naval Aviation Maintenance/Material Management, Class B NV-1717-0003
- Naval Aviation Observer (Controller), Class O NV-1704-0197
- Pre-flight, Naval Aviation Cadets and Aviation Officer Candidates NV-1606-0046
- Warrant Officer (WO) Aviation Indoctrination NV-2202-0016

Aviation Electronics
- Aviation Electronics Fundamentals, Class A NV-1715-0380
- Aviation Electronics Intelligence, Class O/C NV-1715-0504
- Aviation Electronics Officers, Class O NV-1715-0522
- Aviation Electronics Operator MC-1715-0049
- Aviation Electronics Technician (AT) Communications, Class A CG-1405-0001
- Aviation Electronics Technician/Aviation Fire Control Technician, Advanced Class B NV-1715-0137
- Aviation Electronics Technician, Class A CG-1715-0001 CG-1715-0012 NV-1715-0289
- Aviation Electronics Technician, Class B NV-1715-0137
- Aviation Electronics Technician N (Navigation), Class A NV-1715-0097
- Aviation Electronics Technician R (Radar), Class A NV-1715-0295
- Aviation Electronics Technician S (Antisubmarine), Class A NV-1715-0154

Aviation Support
- Aviation Support Equipment Gasoline Engine Intermediate Maintenance NV-1703-0006
- Aviation Support Equipment GTCP-100 and Enclosures Intermediate Maintenance NV-1704-0109
- Aviation Support Equipment GTCP-100 Engine Intermediate Maintenance NV-1704-0109
- Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance NV-1715-0541
- Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
- Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance NV-1715-0700
- Aviation Support Equipment Technician, Class A (Hydraulic Specialty) NV-1704-0112
- Aviation Support Equipment Technician, Class A (Mechanical Speciality) NV-1704-0113
- Aviation Support Equipment Technician Hydraulics and Structures, Class A NV-1704-0138
- Aviation Support Equipment Technician Mechanical, Class A NV-1704-0145
- Aviation Support Equipment Weapons Loaders Hydraulic Systems Intermediate Level Maintenance NV-1704-0110

Aviator
- Advanced Navigation Training (Postgraduate Coast Guard Aviator) NV-1606-0033
- Advanced Navigation Training (Postgraduate Naval Aviator) NV-1606-0032
- Navigation Flight Training, Naval Aviator and Naval Flight Officer NV-1606-0045

Avionic
- SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance NV-1715-0697

Avionics
- A-3 Related Avionics System (AT/AQ) Organizational Level Maintenance NV-1715-0279
- A-3 Related Avionics System (AT/AQ) Organizational Maintenance NV-1715-0279
- A-6 Avionics Systems Organizational Level Maintenance NV-1715-0474
- A-7A/B Integrated Avionics Weapons System Technician Organizational Maintenance NV-1715-0450
- Advanced First Term Avionics, Class B (AFTA) NV-1715-0556
- Avionics Advanced, Class B NV-1715-0137
- Avionics Advanced, Class C7 NV-1715-0137
- Avionics, Class B NV-1715-0137
- Avionics Equipment, Class C, AN/ARC-51A CG-1715-0022
- Avionics Equipment, Class C, AN/ARC-94 CG-1715-0019
- Avionics Equipment, Class C, AN/ARN-52(V) CG-1715-0021
- Avionics Equipment, Class C, AN/ARN-79 CG-1715-0020
- Avionics Fundamentals, Class A NV-1715-0049 NV-1715-0380
- Avionics Intermediate, Class B NV-1715-0102
- Avionics Officers, Class O NV-1715-0170
- Avionics Repairman, Class C NV-1704-0228
- Avionics Technician (AV), Class A NV-1715-0380
- Avionics Technician, Class A NV-1715-0380
- Integrated Avionics Radar System Technician NV-1715-0035
- Integrated Avionics Weapons System Specialist NV-1715-0266
- Integrated Avionics Weapons System Technician NV-1715-0267
- Intermediate Avionics, Class B NV-1715-0102
- P-3C Integrated Avionics System Technician NV-1715-0329
- RA-5C Avionics Officers/Supervisors Familiarization NV-1704-0038
- S-2D/E Avionics Systems Organizational Maintenance NV-1715-0641
- S-3A Copilot Avionics NV-1606-0057

Avionicsman
- HC-130 Avionicsman by Correspondence CG-1715-0040
- HH-3F Avionicsman by Correspondence CG-1715-0039

AVQ-2
- P-3 Power Generating System and AVQ-2 Searchlight Intermediate Maintenance NV-1715-0659

AVROC
- Aviation Reserve Officer Candidate (AVROC) NV-2202-0088

AWTT
- Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance NV-1715-0785

Azimuth
- AN/SRN-15 TACAN Distance Azimuth Measuring Equipment (DAME) Maintenance (Electronics Technician, Class C1) NV-1715-0175

Bailey Meter
- Steam Plant Automatic Controls Maintenance (Bailey Meter) NV-1710-0074

Baker
- Advanced Baker MC-1729-0012
- Baker MC-1729-0001
- Basic Baker MC-1729-0001
- Basic Specialist Training Baker MC-1729-0001

Bakery
- Bakery Management MC-1729-0011
- Bakery Noncommissioned Officer (NCO) Leadership MC-1729-0006

Ballistic
- Fleet Ballistic Missile (FBM) Navigation Officer NV-1715-0456
- OA-3734/ASM-77 Ballistic Computer Test Console Intermediate Maintenance NV-1715-0548

Ballistics
- A-6 AN/ASQ-61A Ballistics Computer Intermediate Maintenance

NV-1715-0068
A-6 AN/ASQ-61A Ballistics Computer Theory
NV-1715-0067
A-6 AN/ASQ-61 Ballistics Computer Intermediate Maintenance
NV-1715-0068
A-6 Ballistics Computer Test Console Intermediate Maintenance
NV-1715-0342

Band
Band Group Leader (Army)
NV-1205-0003
Band Instrumentalist (Army)
NV-1205-0001

Bandsman
Bandsman Basic (Army)
NV-1205-0001

Barber
Ship Serviceman/Class C/Shipboard Barber
NV-1726-0001

Basal
Electrocardiography and Basal Metabolism Technic
NV-0709-0010
Electrocardiography and Basal Metabolism Technician, Class C
NV-0709-0010

Basic
Bandsman Basic (Army)
NV-1205-0001
Basic Course
MC-2204-0042
Basic Course (Class A)
NV-1205-0001
Basic Course, Postgraduate
MC-1408-0009
Basic Electronics
CG-1715-0043
Basic Military Training
CG-2205-0011
MC-2204-0038
NV-2202-0014
Basic Military Training (Women)
MC-2204-0046
Basic Phase, Pilot Training
NV-1606-0049
Basic Shore Party Man
MC-2204-0029
Basic Supply Stock Control
MC-1405-0012
Basic Travel Clerk
MC-1403-0005
Defense Language Institute Basic Courses (1954–1956)
DD-0602-0001
Defense Language Institute Basic Courses (After 1956)
DD-0602-0002
Music, Class A, Basic
NV-1205-0001
Naval School of Music, Class A, Basic
NV-1205-0001
NESEP Basic
NV-2202-0101
Special Basic Course
MC-2204-0042
Woman Officer Basic
MC-2204-0035

Basic-Intermediate
Defense Language Institute Extended or Basic-Intermediate Courses
DD-0602-0005

Battalion
Battalion Staff Officers (Amphibious Planning)
NV-2202-0025

Batteryman
Field Artillery Batteryman
MC-2204-0010
Special Anti-Air Warfare (AAW) Batteryman
MC-1715-0069

Beacon
AN/APN-154(V) Radar Beacon Intermediate Maintenance
NV-1715-0584

Biological
Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors
NV-0802-0001
Nuclear, Biological and Chemical (NBC) Defense Ashore
NV-0801-0005
Nuclear, Biological and Chemical (NBC) Defense for Petty Officers
NV-0801-0004
Nuclear, Biological and Chemical (NBC) Defense (Shipboard)
NV-0801-0001
Nuclear, Biological and Chemical (NBC) Warfare Defense
MC-0801-0001
Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore
NV-0801-0005
Nuclear, Biological, and Chemical (NBC) Weapons Employment
MC-2204-0036

BIT
F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance
NV-1715-0706

BITCS
Reserve Basic Intelligence Training Subjects (BITCS)
NV-1606-0056

Blasting
EO"C" Blasting and Quarry Operations
NV-1710-0064

Blood
Blood Bank and Clinical Laboratory Technic
NV-0702-0003

BNCN
A-6 BNCN and BNCB Test Set, Intermediate Maintenance
NV-1715-0051

Boat
Assault Boat Coxswain
NV-1708-0006
Assault Boat Engineer
NV-1712-0009
NV-1712-0016
Boat Group Officers
NV-2202-0066
Depot Level Boat Repairman (Engineman)
NV-1712-0013
Swift Boat Crew Training
NV-1722-0009

Boating
Boating Safety by Correspondence
CG-0802-0001
National Boating Safety
CG-0802-0004

Boatswain's
Aviation Boatswain's Mate F (Fuels), Class A
NV-1728-0005
Aviation Boatswain's Mate G Gasoline School, Class A
NV-1722-0001
Aviation Boatswain's Mate H (Aircraft Handling), Class A
NV-1728-0014
Aviation Boatswain's Mate H (Handling), Class A
NV-1728-0014
Aviation Boatswain's Mate U (Utility), Class A
NV-1728-0013
Basic Boatswain's Mate (General)
NV-1722-0005
Boatswain's Mate, Class A
CG-1708-0001
Boatswain's Mate First Class by Correspondence
CG-1708-0004
Boatswain's Mate School
CG-1708-0001
Boatswain's Mate Second Class by Correspondence
CG-1708-0003
Boatswain's Mate Third Class by Correspondence
CG-1708-0002
Boatswain's Mate Training
NV-1722-0002

Boiler
Boiler Technician, Class A1 (1200 PSI)
NV-1710-0001
Boiler Technician, Class A1 (600 PSI)
NV-1710-0001
Pressure Fired Boiler, Class C
NV-1710-0003
Utilitiesman, Shore Based Boiler Controls, Class C
NV-1710-0027

Boilerman
1200 PSI BT Maintenance (Boilerman)
NV-1710-0032
Boilerman, Class B
NV-1710-0033
Boilerman Enlisted Maintenance
NV-1710-0002

Boilermen
Boilermen, Class A
NV-1710-0001

Bomb
Aviation Fire Control Technician B (Bomb Director), Class A
NV-1715-0141
F4B AN/AJB-3A Loft Bomb Release Computer Set
NV-1715-0050
F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance
NV-1715-0549
RA-5C AN/ASB-12 Bomb Directing Set Organizational Maintenance
NV-1715-0579
RA-5C Semi-Automatic Test Equipment Bomb Director
NV-1715-0547

Bombardier
A-6 Bombardier Navigator Control Box and Associated Test Set, Intermediate Maintenance

NV-1715-0051

Bombardier Navigator NV-1606-0036

Bombing

A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance NV-1715-0263

A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator NV-1715-0615

A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational) NV-1704-0098

BRN-6

Satellite Receiver AN/SRN-9A, BRN-6 Combined Maintenance, Class F1 NV-1715-0492

Broadcast

Broadcast Officer DD-0505-0002

Broadcast Specialist DD-0505-0001

Fleet Satellite Communications Fleet Broadcast Control Subsystem Maintenance (Electronics Technician, Class C1) NV-1715-0874

Broadcaster

Information Specialist (Broadcaster) DD-0505-0001

BU"A"

Builders, Class A (BU"A") NV-1710-0063

BU"C"

BU"C" Concrete NV-1710-0040

BU"C" Heavy Construction NV-1710-0034

BU"C" Masonry NV-1710-0038

BU"C" Millworker NV-1736-0001

Builder—Tool and Equipment Maintenance (BU "C") NV-1002-0001

Bugle

Drum and Bugle Corps MC-1205-0002

Builder

Builder, Class B NV-1710-0042

Builder, Class J (BU"J") NV-1710-0042

Builder/Concrete, Class C NV-1710-0040

Builder/Heavy Construction Technician, Class C NV-1710-0034

Builder/Masonry, Class C NV-1710-0038

Builder/Millworker, Class C NV-1736-0001

Builder—Tool and Equipment Maintenance (BU "C") NV-1002-0001

Builders

Builders, Class A (BU"A") NV-1710-0063

BU"J"

Builder, Class J (BU"J") NV-1710-0042

Bulgarian

Bulgarian

DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0006

Bullpup

AN/ARW-77 Bullpup Guidance Control System NV-1715-0627

Bullseye

Bullseye Narrowband Maintenance Technician NV-1715-0819

Bullseye System Basic Maintenance NV-1715-0818

Bullseye Wideband Maintenance Technician, Class 3 NV-1715-0830

Cryptologic Technician M, Basic Bullseye Maintenance NV-1715-0818

Cryptologic Technician M, Bullseye Narrowband Maintenance NV-1715-0819

Cryptologic Technician M, Bullseye Wideband Maintenance NV-1715-0830

Buoy

SECT Buoy AN/BST-1 Basic Maintenance, Class F1 NV-1715-0900

Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance NV-1715-0900

Burmese

Burmese
DD-0602-0002
DD-0602-0003

C-121

C-121 Electrical Systems NV-1704-0178

C-121 Electronic Systems NV-1704-0179

Pilots C-121 Simulator and Advanced Flight NV-1606-0034

Pilots C-121 Simulator and Basic Flight NV-1606-0035

C-13

Aircraft Launch and Recovery Equipment (C-13 and C-13 Mod 1 Catapults), Class C NV-1704-0187

Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C NV-1704-0187

Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O NV-1704-0200

Catapult, Arresting Gear and Visual Landing Aids (C-13 Catapult and Mk-7 Arresting Gear), Class C NV-1710-0006

Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C NV-1710-0006

C-130

C-130 Aircraft Mechanic Organizational Maintenance NV-1704-0237

C-131A

C-131A Propeller Maintenance, Class C

CG-1704-0012

C-2A

C-2A Aircraft Familiarization (Pilots) NV-1704-0121

C-2A AN/ARN-81 Loran Intermediate Maintenance NV-1715-0247

C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance NV-1715-0461

C-2A Electrical and Instruments Organizational Maintenance NV-1715-0150

C-2A Environmental Systems Organizational Maintenance NV-1730-0005

C-2A Hydraulics/Airframes System Maintenance NV-1704-0143

C-2A Hydraulics/Airframes System Organizational Maintenance NV-1704-0143

C-2A Power Plant and Related Systems Organizational Maintenance NV-1704-0127

E-2B and C-2A Environmental Systems Organizational Maintenance NV-1701-0003

C-7/11

Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C NV-1710-0071

Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O NV-1704-0183

C-8185

A-7E C-8185 Armament Station Control Unit Intermediate Maintenance NV-1704-0203

Cable

Cable Tester Alfred Model 9500 Intermediate Maintenance NV-1715-0397

CE"C" Cable Splicing NV-1714-0015

Construction Electrician Cable Splicer (Class C) NV-1714-0015

Construction Electrician—Power and Communications Cable Splicing NV-1714-0015

Calculator

Calculator Repair Class C NV-1706-0001

Instrumentman (Calculator Repair), Class C NV-1706-0001

Calibration

Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician) NV-1715-0171

SINS Mk 2 Mod 6 Calibration NV-1715-0202

Camera

Camera Repair, Class C NV-1715-0354

P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance NV-1715-0358

RA-5C Panoramic Camera Shop

Maintenance NV-1715-0143
RA-5C Still Picture Camera Shop Maintenance NV-1715-0439
RF-4B Camera Control System Intermediate Maintenance NV-1715-0752
RF-4B Camera Control System Organizational Maintenance NV-1715-0750

Cameraman
Motion Picture Cameraman NV-1709-0009
Photographer's Mate A (Aerial Cameraman) NV-1709-0001
Photographer's Mate G (Cameraman) NV-1709-0001

Candidate
Officer Candidate MC-2204-0050
Officer Candidate School MC-2204-0050
Officer Candidate School (Seamanship, Orientation, Operations & Military Indoctrination) CG-2202-0001
Warrant Officer Candidate MC-2204-0009
Warrant Officer Candidate Screening MC-2204-0009
Woman Officer Candidate MC-2204-0024

Card
A-6 Card Module Analyzer Test Console, AN/ASM-118, Intermediate Maintenance NV-1715-0336

Cardiopulmonary
Cardiopulmonary Technic NV-0709-0006
Cardiopulmonary Technician, Class C NV-0709-0006

Career
Instructor, Class C (Career Information and Counseling) NV-1406-0004
Personnelman, Class C (Career Information and Counseling) NV-1406-0004

Carrier
All Weather Carrier Landing System Equipment Maintenance, AN/SPN-42, Class C NV-1715-0286
Automatic Carrier Landing System Equipment Maintenance AN/SPN-42 (ET), Class C NV-1715-0286
Carrier Air Traffic Control Center Controller Class C/O NV-1704-0012
Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-10, Class C NV-1715-0337
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35A and AN/SPN-35, Class C NV-1715-0713
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35, Class C NV-1715-0713
Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-41 NV-1715-0230
Carrier Air Traffic Control Center Equipment Maintenance AN/SPN-44 NV-1715-0234
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-6 and AN/SPN-12 (XN-4), Class C NV-1715-0715
Carrier Air Traffic Control Center Equipment Maintenance (AN/SPN-6), Class C NV-1715-0293
Carrier Air Traffic Control Center Equipment Maintenance, Radar Set AN/SPN-43, Class C NV-1715-0236
Carrier Aviation Antisubmarine Warfare (AASW) Acoustic Operator (Passive) NV-2202-0096
Carrier Fixed Wing Antisubmarine (AASW) Warfare Tactics NV-2202-0001
Carrier Gasoline and Inert Gas Systems, Class C NV-1405-0018

Cartographic
Advanced Photogrammetric Cartographic Techniques DD-1601-0005
Basic Photogrammetric Cartographic Techniques DD-1601-0001
Cartographic Drafting DD-1713-0002

Cartography
Basic Cartography DD-1601-0011

Cascadex
Cascadex 100 Pound Washer/Extractor Maintenance, Class C NV-1702-0001

Catapult
Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C NV-1710-0071
Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O NV-1704-0200
Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O NV-1704-0183
Catapult and Arresting Gear, Class C NV-1710-0009
Catapult, Arresting Gear and Visual Landing Aids (C-13 Catapult and Mk-7 Arresting Gear), Class C NV-1710-0006
Catapult, Arresting Gear, and Visual Landing Aids (C-7/C-11 Catapults and Mk-7 Arresting Gear), Class C NV-1710-0005
Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C NV-1710-0006
Catapult, Arresting Gear, and Visual Landing Aids CVA (C-7/11 Catapults), Class C NV-1710-0005
Catapult, Arresting Gear and Visual Landing Aids (CVS) (H-8 Catapults and Mk-5 Arresting Gear) NV-1710-0029
CVA Catapult Electrician, Class C NV-1710-0010
CVA Catapult Steam and Drain System, Class C NV-1710-0008
CVS Catapult, Arresting Gear, and Visual Landing Aids, Class C NV-1710-0007

CCI-611
CCI-611 and Motorola Triton VHF-FM Transceivers CG-1715-0057

CDFO-5000
CDFO-5000, Class C CG-1715-0048

CE"A"
Construction Electrician, Class A (CE"A") NV-1714-0008

CE"C"
CE"C" Cable Splicing NV-1714-0015

CE"J"
Construction Electrician, Class J (CE"J") NV-1714-0010

Celestial
Celestial Navigation by Correspondence CG-1304-0004

Central
Atmosphere Analyzer, CAMS (Central Atmosphere Monitoring System) Mk 1 NV-1715-0496
Central Computer Complex Combined Maintenance and Software NV-1402-0047
High Frequency Communication Central Operator MC-1715-0083
Mobile Data Central Technician MC-1715-0085
Mobile Dial Central Technician MC-1715-0085
SSN Central Computer Complex System Level Maintenance and Software NV-1402-0047
Tactical Air Operations Central Technician MC-1715-0082

Centrifugal
110 Ton R11 Centrifugal Air Conditioning Unit (York) NV-1701-0004
Centrifugal Air Conditioning Plant Operation and Maintenance NV-1701-0006
R-11 Centrifugal 110 Ton Air Conditioning Combined Maintenance NV-1701-0004

CH-46A
CH-46A AN/ALQ-52(V) Navigational TACAN Maintenance MC-1715-0071
CH-46A Electrical and Instrument Systems NV-1704-0077
CH-46A Rotors and Related Systems Maintenance NV-1704-0060

CH-53
CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance

NV-1715-0101
CH-53 T-64-GE-413 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0032

CHAFFROC
CHAFFROC MK 28 Mod 1 Launcher Systems Maintenance
NV-1715-0148
Shipboard Decoy System (CHAFFROC) Launcher Operation and Maintenance Mk 28 Mod 1-5
NV-1715-0684

Chaplain
Chaplain School Advanced
NV-1408-0020
Chaplain School Basic
NV-1513-0004

Charting
Mapping, Charting, and Geodesy Officer
DD-1601-0007

Checkout
Antenna Group AN/BRA-16 Functional Checkout and Maintenance
NV-1715-0161
E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance
NV-1715-0349
E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance
NV-1715-0318
E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance
NV-1715-0323
E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance
NV-1715-0348

Chemical
Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors
NV-0802-0001
Nuclear and Chemical Weapons Employment
MC-2204-0036
Nuclear, Biological and Chemical (NBC) Defense Ashore
NV-0801-0005
Nuclear, Biological and Chemical (NBC) Defense for Petty Officers
NV-0801-0004
Nuclear, Biological and Chemical (NBC) Defense (Shipboard)
NV-0801-0001
Nuclear, Biological and Chemical (NBC) Warfare Defense
MC-0801-0001
Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore
NV-0801-0005
Nuclear, Biological, and Chemical (NBC) Weapons Employment
MC-2204-0036

Chemicals
Hazardous Chemicals Training
CG-0802-0006

Chemistry
Clinical Chemistry Technic
NV-0702-0006
Clinical Chemistry Technician, Class C
NV-0702-0006

Chief
Supply Chief Leadership
MC-1405-0011

Chiefs
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs)
CG-1717-0003

Chinese
Basic Chinese—Refresher
DD-0602-0011
Chinese—Cantonese
DD-0602-0001
DD-0602-0002
Chinese—Fukienese
DD-0602-0002
Chinese—Mandarin
DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0005
DD-0602-0006
DD-0602-0007
DD-0602-0009
Chinese—Toishan
DD-0602-0002

Chinese—Cantonese
Chinese—Cantonese
DD-0602-0001
DD-0602-0002

Chinese—Fukienese
Chinese—Fukienese
DD-0602-0002

Chinese—Mandarin
Chinese—Mandarin
DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0005
DD-0602-0006
DD-0602-0007
DD-0602-0009

Chinese—Toishan
Chinese—Toishan
DD-0602-0002

CI
E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance
NV-1715-0318

CIC
Basic CIC Techniques for Enlisted Personnel
NV-2202-0038
Combat Information Center (CIC) Officer, Class O
NV-2202-0069
Combat Information Center (CIC) Watch Officer, Class O
NV-2202-0074
Inactive Duty Reserve Combat Information Center (CIC) Class—Basic, Supervisory and Officer Team Training
NV-1715-0509

Circuit
Circuit Breakers and Controllers
NV-1715-0898
Closed Circuit Television Maintenance, Class C1
NV-1715-0407
Closed Circuit Television Systems by Correspondence
CG-1715-0064
Controllers and Circuit Breakers Combined Maintenance
NV-1715-0898
Controllers Circuit Breakers, Class F1
NV-1715-0898
DD963 Basic Circuit Concepts for Gas Turbine Controls, Class C1
NV-1402-0020
Electronics Technician, Class A—A-2 (Electronic Circuit Applications)
NV-1715-0723
Solid State Circuit Troubleshooting Techniques
NV-1715-0149

Circuitry
F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance
NV-1715-0371

Circuits
Advanced Undersea Weapons Circuits
NV-1715-0717
Basic Undersea Weapons Circuits
NV-1715-0716
KC-130F Electrical Systems and Circuits Maintenance
NV-1704-0071

Civil
Civil Engineer Corps Officer Basic—Contract Administration Specialty
NV-1408-0013
Civil Engineer Corps Officer Basic—Naval Construction Battalion Operations Specialty
NV-1408-0015
Civil Engineer Corps Officer Basic—Public Works Management Specialty
NV-1408-0014

Clarinet
Clarinet Pilgrim
CG-1715-0018

Class A
Class A Marine Science Technician
CG-1304-0001

Classification
Interviewing and Classification
NV-1406-0018
Personnelman, Class C-1, Interviewing and Classification
NV-1406-0018
Self-Noise Determination and Classification
NV-1601-0012

Clerical
Marine Aviation Operations Clerical, Class C
NV-1409-0008
Neuropsychiatric Clerical Technic
NV-1403-0001

Clerk
Administrative Clerk
MC-1403-0002
Advanced Disbursing Clerk
MC-1408-0002
Basic Legal Clerk and Reporter
MC-1407-0001
Basic Travel Clerk
MC-1403-0005
Disbursing Clerk, Class C (Financial Returns
NV-1408-0001
Disbursing Clerk, Class C (Travel Payments)
NV-1408-0002

Disbursing Clerk Course MC-1408-0001
Disbursing Clerk Financial Returns Class C NV-1408-0001
Disbursing Clerk (Pay Records Maintenance) Class C NV-1401-0001
Fiscal Accounting Clerk MC-1402-0026
Legal Clerk and Court Reporting NV-1407-0002
Legal Clerk/Court Reporter MC-1407-0001
Personnel Clerk MC-1405-0003
Postal Clerk, Class A NV-1404-0001
Unit Diary Clerk MC-1403-0001

Clinical
Blood Bank and Clinical Laboratory Technic NV-0702-0003
Clinical Chemistry Technic NV-0702-0006
Clinical Chemistry Technician, Class C NV-0702-0006
Clinical Laboratory Assistant Technic NV-0702-0008
Clinical Laboratory Technician, Class C NV-0702-0003
Clinical Nuclear Medicine Technician NV-0705-0002
Clinical Nuclear Medicine Technique NV-0705-0002

Clock
Watch and Clock Repair, Class C NV-1721-0005

Close
Close Combat Instructor MC-0803-0001

Closed
Closed and Semiclosed Scuba NV-1606-0012
Closed Circuit Television Maintenance, Class C1 NV-1715-0407
Closed Circuit Television Systems by Correspondence CG-1715-0064
Closed Circuit TV Maintenance, Class C1 NV-1715-0189
Commissioned Officers' Mess Closed Mess Management NV-1729-0008
Legal Services Reporter SPCM (Closed Microphone) MC-1728-0005

Clubs
Management of Marine Corps Clubs NV-0902-0001

Clutter
Clutter Suppressor and Automatic Alarm for the AN/SPS-10 NV-1715-0433

CM"A"
Construction Mechanic, Class A1 (CM"A") NV-1710-0035

CM"C"
CM"C" Automotive Electrical Maintenance NV-1703-0001
CM"C" Auto Trans NV-1703-0003

CM"J"
Construction Mechanic, Class J (CM"J") NV-1710-0065

CMS-2
AN/UYK-7 CMS-2 (Y) Compiler Language Programming NV-1402-0046
CMS-2 Compiler Language Programming NV-1402-0017
CMS-2 Programming (CP-642 A&B/USQ-20) NV-1402-0009

CNI
A-4E Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0452
A-4F/L/TA-4F Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0383
A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance NV-1715-0370
A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance NV-1715-0370
CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0101
F-4B Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1704-0076
F-4J Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1704-0074
F-4J Communication Navigation Identification (CNI) Organizational Maintenance NV-1715-0612
F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0688
RA-5C Communication Navigation Identification (CNI) and DECM Organizational Maintenance NV-1704-0075
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1715-0357

Coastal
Coastal Patrol Craft Training NV-1722-0003

COBOL
IBM System 360 Computer System Programming (COBOL Language), Class C NV-1402-0007
IBM System 360 (DOS) COBOL Programming MC-1402-0011
IBM System 360 OS COBOL Language (Entry-level) MC-1402-0029
IBM System 360 (OS) COBOL Programming MC-1402-0013
MC-1402-0036
System 360 Operating System—COBOL Programming Phase MC-1402-0007
UNIVAC 1218/418/490-CP-789/UYK-5(V) System Programming Course (COBOL Language), Class C NV-1402-0030

Coding
IBM System 360 (OS) Advanced Coding MC-1402-0037

Cold
Cold Weather Field Indoctrination MC-0803-0003
Cold Weather Field Indoctrination Training for FMF Cadets and Reservists MC-0803-0003
F/RF-4B J79-GE-8/8A Cold Section Repair NV-1704-0201

Collection
Cryptologic Technician Collection Branch NV-1715-0836

Combat
Close Combat Instructor MC-0803-0001
Combat Engineer (Advanced) MC-1710-0019
Combat Engineer Basic MC-1710-0020
Combat Engineer Basic Specialist MC-1710-0020
Combat Engineer Officer MC-1601-0004
Combat Information Center (CIC) Officer, Class O NV-2202-0069
Combat Information Center (CIC) Watch Officer, Class O NV-2202-0074
Combat Sensor Warfare Training NV-2202-0071
DLG 6-16 Combat System NV-1715-0764
Inactive Duty Reserve Combat Information Center (CIC) Class—Basic, Supervisory and Officer Team Training NV-1715-0509
Infantry Replacement and Individual Combat Training MC-2204-0008
Marine Enlisted Basic Combat Intelligence NV-1606-0005

Combustion
Automatic Combustion Control Maintenance NV-1710-0011

Command
Amphibious Command Indoctrination NV-2202-0005
College of Naval Command and Staff NV-1511-0003
Command and Control DD-1402-0001
Command and Staff Course NV-1511-0003
Command Intelligence Officer (CIO) NV-1606-0024

Marine Corps Command and Staff College MC-1408-0008
School of Naval Command and Staff NV-1511-0003
SSBN Command Weapons System Orientation—Polaris NV-1715-0573
SWS (Strategic Weapons System) Command Polaris NV-1715-0573

Commissaryman
Commissaryman, Class A CG-1729-0001 NV-1729-0004
Commissaryman-Steward, Class A NV-1729-0004
Commissaryman-Steward, Class C NV-1729-0003
Commissaryman-Steward Management Principles, Class C NV-1729-0002

Commission
Direct Commission Class CG-2202-0002

Common
Common User Digital Information Exchange System (CUDIXS) Maintenance NV-1715-0872
Common Users Digital Information Exchange System (CUDIXS) Operators NV-1715-0879

Communication
A-4E Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0452
A-4F/L/TA-4F Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0383
A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance NV-1715-0370
A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance NV-1715-0370
AN/ARC-51, 51A and 51AX Communication Systems Intermediate Maintenance NV-1715-0710
AN/ARC-54 VHF Communication Set Intermediate Maintenance NV-1715-0098
Basic Communication Officer MC-1405-0019
CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0101
Communication Center Chief MC-1408-0004
Communication Center Man MC-1409-0004
Communication Central, AN/TGC-37, system Maintenance MC-1715-0006
Communication Officer MC-1405-0007
Communication Officer Afloat NV-1404-0003
Communication Officer Fleet NV-1404-0003
Communication Officers Orientation MC-1405-0019
E-2A AN/ASQ-52 Data Communication System Special Support Equipment Intermediate NV-1715-0382
F-4B Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1704-0076
F-4B Communication Navigation Identification (CWI) Organizational Maintenance NV-1715-0255
F-4J Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1704-0074
F-4J Communication Navigation Identification (CNI) Organizational Maintenance NV-1715-0612
F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0688
High Frequency Communication Central Operator MC-1715-0083
Mobile Communication Central Technician MC-1715-0006
Operational Communication Chief MC-1717-0001
P-3 AN/ARC-51A Communication Systems Maintenance, No. 22 NV-1715-0710
P-3C Communication/Navigation Organizational Maintenance NV-1715-0533
P-3 Communication/Navigation Organizational Maintenance NV-1715-0739
RA-5C Communication Navigation Identification (CNI) and DECM Organizational Maintenance NV-1704-0075
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1715-0357
Submarine Communication Application and Theory Module 1 NV-1715-0927
Submarine Communication Application and Theory Module 2 NV-1715-0928
Submarine Communication Application and Theory Module 3, Class A-1 NV-1715-0929
Submarine Communication Application and Theory Module 4 NV-1715-0930
Submarine Communication Application and Theory Module 5 NV-1715-0931
Submarine Communication Application and Theory Module 6 NV-1715-0932

Communications
Advanced Communications Officer MC-1715-0039
Airborne Radio Communications Operator (ARCO) NV-1715-0481
AN/ARC-142 H.F. Communications System Intermediate Maintenance NV-1715-0058
AN/ARC-143 Communications System Intermediate Maintenance NV-1715-0059
AN/ARC-160 Communications System CG-1715-0029
AN/ARC-94 Class C and 490 T High Frequency (HF) Communications System and Antenna Coupler CG-1715-0019
AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group NV-1715-0876
AN/WSC-5 Tactical Satellite Communications System Maintenance NV-1715-0877
ARC-160 Communications System CG-1715-0029
Aviation Electronics Technician (AT) Communications, Class A CG-1405-0001
Basic Airborne Radio Communications Operator NV-1715-0481
Communications Central Group AN/TYA-11 Technician MC-1715-0030
Communications Officer Ashore NV-1715-0113
Communications Officer (Short Course) NV-1404-0005
Communications Quality Monitoring System Operator NV-1715-0690
Communications Receiver Site Systems Maintenance, Class C1 NV-1715-0356
Communications Systems, Class 'C' CG-1715-0047
Communications Systems Technician, Class C NV-1715-0105
Communications Technician Administration Branch Class A NV-1715-0400
Communications Technician (M), Class A NV-1715-0544
Communications Technician "O" Branch, HFDF Communications Technical Control NV-1715-0800
Communications Technician T and R Basic Preparatory, Class A NV-1404-0004
Communications Transmitter Site Systems Maintenance, Class C1 NV-1715-0387
Communications Yeoman, Class A NV-1409-0007
Cryptologic Technician Communications Rating, Class A NV-1715-0850
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800
Cryptologic Technician O, Tactical Communications Systems Operations and Management, Class C3 NV-1715-0849

E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance NV-1715-0527
E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance NV-1715-0347
E-2A Multi-Purpose Communications System (AN/ASQ-52) Intermediate Maintenance NV-1715-0379
EA-6B Communications, Navigation and Radar System Organizational Maintenance NV-1715-0311
Electronics Technician A, Communications NV-1715-0851
Electronics Technician, Class A—A-3 (Communications) NV-1715-0724
Electronics Technician, Class A (Communications) NV-1715-0730
Electronics Technician, Class A (Communications, Radar and Sonar Specialties) NV-1715-0727
Electronics Technician, Class A, Phase SEIN (Shipboard Equipment Indoctrination, Communications) NV-1715-0639
Electronics Technician, Class C Shipboard Equipment Indoctrination (Communications) NV-1715-0639
Electronics Technician Communications Basic, Class A1 NV-1715-0851
Electronics Technician Communications, Class A CG-1715-0011
Electronics Technician Communications Equipment Fundamentals, Class A1 NV-1715-0852
Electronics Technician Communications—Nuclear Field, Class A1 NV-1715-0853
F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician NV-1704-0217
First Tour Pilot P-3C Communications Operator NV-1704-0213
Fleet Satellite Communications Fleet Broadcast Control Subsystem Maintenance (Electronics Technician, Class C1) NV-1715-0874
High Frequency Direction Finding (HFDF) Communications Technical Control NV-1715-0800
Interior Communications Electricians, Class A (A-1) NV-1715-0729
Interior Communications (IC), Class A, Part II (Interior Communications Equipment) NV-1715-0173
Interior Communications (IC) Electrician, Class B NV-1715-0755
Interior Communications (IC) Electrician, Class C7 NV-1715-0755
Interior Communications (IC) Package Course for SSN/SSBN NV-1715-0886
Marine Air Traffic Control Communications Repairman, Class C NV-1715-0799
Mobile Data Communications Terminal Technician MC-1715-0081
Naval Amphibious Communications NV-1404-0006
Naval Flight Officer P3C Communications Operator NV-1704-0219
Naval Modular Automated Communications System (NAVMACS) A Maintenance NV-1715-0875
P-3A/B Communications Navigation (COMM/NAV) Organizational Maintenance NV-1715-0096
P-3 AN/ARC-52 UHF Communications Systems Maintenance, No. 21 NV-1715-0346
P-3 AN/ARC-94 Communications System Maintenance, No. 19 NV-1715-0374
Radio Communications System Maintenance for DD963 Class Ships, Class C-1 NV-1715-0870
Reserve Cryptologic Technician Communications Technical Control, Class F1 NV-1715-0848
Reserve Naval Security Group-7 Communications Technical Control NV-1715-0848
Special Communications Equipment AN/WRA-3 Maintenance NV-1715-0251
Special Communications Equipment AN/WRT-4 Maintenance NV-1715-0250
Submarine Communications Equipment NV-1715-0885
Submarine Communications Equipment Combined Maintenance NV-1715-0885
Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance NV-1715-0900
Submarine Interior Communications (IC) Systems NV-1715-0642
Tactical Data Communications Central Repairman MC-1715-0077
Tactical Data Communications Central (TDCC AN/TYQ-3) Technician MC-1715-0026
Tactical Data Communications Central Technician MC-1715-0026
Tactical Satellite Communications Equipment Maintenance AN/WSC-5(V) NV-1715-0877

Communicator
Airborne Communicator NV-1409-0004

Compilation
Map Compilation DD-1713-0001
Photogrammetric Compilation DD-1601-0009

Compiler
AN/UYK-7 CMS-2 (Y) Compiler Language Programming NV-1402-0046
CMS-2 Compiler Language Programming NV-1402-0017

Component
Electrical Component Maintenance (UNREP) NV-1715-0025
Microminiature Component Repair Intermediate Maintenance NV-1715-0157
Miniature Component Repair NV-1715-0156
UNREP Electrical Component Maintenance United Controls NV-1715-0025

Compressed
Compressed Gases, Class C NV-1601-0010
Compressed Gases, Class C, High Pressure Oxygen-Nitrogen Plant NV-1601-0010
Compressed Gases Cryogenerator Maintenance, Class C NV-1601-0001

Computation
Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1 NV-1715-0895

Computer
A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance NV-1715-0263
A-6 AN/ASQ-61A Ballistics Computer Intermediate Maintenance NV-1715-0068
A-6 AN/ASQ-61A Ballistics Computer Theory NV-1715-0067
A-6 AN/ASQ-61 Ballistics Computer Intermediate Maintenance NV-1715-0068
A-6 Ballistics Computer Test Console Intermediate Maintenance NV-1715-0342
A-7E AN/ASN-91 Tactical Computer Intermediate Maintenance NV-1715-0070
AN/AQA-7 (V) Sonar Computer-Recorder Group Intermediate Maintenance NV-1715-0774
AN/ASA-13A Navigational Computer Group Intermediate Maintenance NV-1715-0326
AN/ASA-47 Doppler/Airmass Navigational Computer System Intermediate Maintenance NV-1715-0582
AN/AYN-1 Navigation Computer Systems Class C CG-1715-0024
AN/BRN-3 Computer Advanced Training NV-1715-0925
Automatic Flight Control System (AN/

ASW-15) And Air Data Computer (560T27-1) Organizational Maintenance NV-1715-0741

Basic Computer Theory NV-1402-0038

Basic Digital Computer Theory NV-1715-0904

C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance NV-1715-0461

Central Computer Complex Combined Maintenance and Software NV-1402-0047

Central Navigation Computer (Input/Output) NV-1402-0026

Central Navigation Computer (Processor I) NV-1402-0025

Central Navigation Computer (Processor II) NV-1402-0024

Computer Basics Class C Electronics NV-1402-0011
NV-1402-0012
NV-1402-0013

Computer Detector (CP-413/ASA-27) Intermediate Maintenance NV-1715-0111

Computer MK 1A Maintenance NV-1715-0086

Computer Orientation for Intermediate Executives DD-1402-0003

Computer Programming Orientation NV-1402-0014

Computer Theory, Basic NV-1402-0038

CP-967/UYK Computer Maintenance (Electronics Technician, Class C1) NV-1402-0016

Data Systems Technician, Class A(Phase A-2)—Part II, CP-642A/642B/USQ-20(V) Digital Data Computer Maintenance NV-1715-0044

Digital, Analog, and Hybrid Computer Fundamentals NV-1402-0013

Digital and Analog Computer Fundamentals NV-1402-0012

E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) NV-1715-0460

E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance NV-1715-0478

E-2A Computer Detector (CP-413/ASA-27) and Computer Detector Test Console (OA-3731/ASM-76) Intermediate Maintenance NV-1715-0340

E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance NV-1715-0349

E-2A Computer Indicator (AN/ASA-27) Intermediate Maintenance NV-1715-0046

E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance NV-1715-0318

EKA-3B AN/ASN-66B Navigational Computer Set Intermediate Maintenance NV-1715-0505

F4B AN/AJB-3A Loft Bomb Release Computer Set NV-1715-0050

F-4B/J Air Data Computer Set Intermediate Maintenance NV-1715-0552

Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer NV-1715-0353

F/RF-4B Air Data Computer Set Maintenance NV-1715-0209

IBM System 360 Computer System Programming (COBOL Language), Class C NV-1402-0007

Introduction to Computer Technology DD-1402-0002

Mardan Computer Theory and Maintenance I NV-1715-0447

Mardan Computer Theory and Maintenance II NV-1715-0448

Mardan/Verdan Computer Theory NV-1715-0657

Mk 152 Computer and Peripheral Equipment/Common Core NV-1715-0586

Mk 152 Computer Common Core NV-1715-0136

Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance NV-1715-0271

Naval Data Automated Computer (NAVDAC) Advanced Training NV-1715-0926

OA-3731/ASM-76 Computer Detector Test Console Intermediate Maintenance NV-1715-0798

OA-3734/ASM-77 Ballistic Computer Test Console Intermediate Maintenance NV-1715-0548

P-3 AN/ASN-42 Navigational Computer Set Intermediate Level Maintenance, No. 16 NV-1715-0327

P-3 AN/ASN-42 Navigational Computer Set Intermediate Maintenance NV-1715-0327

P-3 AN/ASN-42 Navigational Computer Set Organizational Level Maintenance, No. 15 NV-1715-0324

P-3C CP-901/ASQ-114 Computer Organizational Maintenance NV-1402-0040

P-3 Synchrophaser/True Airspeed Computer/Signal Lights Control Intermediate Maintenance NV-1715-0322

Polaris Target Card Computer System Mk 148 Mod 0 Maintenance, Class F1 NV-1715-0893

Polaris Target Card Computer System Mk 148 Mod 0 Theory, Class C1 NV-1715-0894

Polaris Target Card Computer System Peripheral Equipment, Class C1 NV-1715-0897

Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language) NV-1402-0033

Radio Navigation Set AN/BRN-3/3A Computer Advanced Training NV-1715-0925

RF-4B AN/ASN-46/56 Navigational Computer and Inertial Navigation System Intermediate Maintenance NV-1715-0228

RF-4B AN/ASN-46/74 Navigation Computer and Inertial Navigation System Intermediate Maintenance NV-1715-0465

S-2D/E AN/ASN-30 Navigational Computer Display Unit and AN/ASQ-80 Coordinate Data Set System Maintenance. NV-1715-0331

SH-3A AN/ASA-13A Navigational Computer Maintenance NV-1715-0333

SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 2 Mod 1 NV-1715-0242
NV-1715-0427

SSN Central Computer Complex System Level Maintenance and Software NV-1402-0047

Tactical General Purpose Computer Technician MC-1402-0045

Talos Computer Mk 111 Mod 1 NV-1715-0634

Talos Computer Mk 111 Mod 1, Class C NV-1715-0419

Tartar Computer Mk 118 NV-1715-0343

Tartar Computer Mk 118 Mod 0 NV-1715-0343

Tartar Mk 152 Computer Complex NV-1715-0792

Terrier Computer Mark 119 Mod 5 NV-1715-0334

Terrier Computer Mark 119 Mod 5 (Fleet Inputs) NV-1715-0334

Terrier Computer Mk 100 Mod 2 NV-1715-0398

Terrier Computer Mk 119 Mods 3 and 4 NV-1715-0334

Terrier Mark 152 Computer Complex NV-1715-0391

UH-2A/B AN/ASA-13A Navigational Computer Group Intermediate Maintenance NV-1715-0326

Verdan Computer Theory and Maintenance I NV-1715-0923

Verdan Computer Theory and Maintenance II NV-1715-0924

Computing

Geodetic Computing DD-1601-0006

CONALOG

CONALOG Maintenance Norden (Enlisted) NV-1715-0252

CONALOG (Norden) Refresher Maintenance and Troubleshooting NV-1715-0253

CONALOG II
- CONALOG II Maintenance (SPERRY) NV-1715-0636

Concrete
- BU"C" Concrete NV-1710-0040

Conditioning
- Air Conditioning Refrigerant 11 NV-1730-0006
- Refrigerant 11 Air Conditioning NV-1730-0006
- Refrigeration and Air Conditioning (Operation and Maintenance) CG-1701-0001

Console
- DD963 Centralized Damage Control Console Operator, Class C1 NV-1601-0015
- DD963 Centralized Damage Control System Console Maintenance, Class C1 NV-1601-0016
- Navigation Operational Checkout Console (NOCC) Mk 1 Mod 1 Advanced Maintenance NV-1715-0128

Construction
- Aids to Navigation Construction CG-1722-0004
- Basic Construction Man MC-1710-0018
- BU"C" Heavy Construction NV-1710-0034
- Builder/Heavy Construction Technician, Class C NV-1710-0034
- Civil Engineer Corps Officer Basic—Naval Construction Battalion Operations Specialty NV-1408-0015
- Construction Contract Administration and Management NV-1408-0009
- Construction Drafting DD-1713-0003
- Construction Electrician Cable Splicer (Class C) NV-1714-0015
- Construction Electrician, Class A (CE"A") NV-1714-0008
- Construction Electrician, Class B NV-1714-0010
- Construction Electrician, Class J (CE"J") NV-1714-0010
- Construction Electrician—Power and Communications Cable Splicing NV-1714-0015
- Construction Foreman MC-1710-0003
- Construction Mechanic/Automatic Transmissions, Class C NV-1703-0003
- Construction Mechanic/Automotive Electrical Maintenance, Class C NV-1703-0001
- Construction Mechanic, Class A1 (CM"A") NV-1710-0035
- Construction Mechanic, Class B NV-1710-0065
- Construction Mechanic, Class J (CM"J") NV-1710-0065
- Construction Surveying DD-1601-0008
- Planning and Estimating Construction Group Ratings, Class C NV-1408-0012

Continuous
- Continuous Wave Illuminator (CWI) Common Core NV-1715-0163
- Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT) NV-1715-0693

Contract
- Civil Engineer Corps Officer Basic—Contract Administration Specialty NV-1408-0013
- Construction Contract Administration and Management NV-1408-0009
- Contract Administration—Accelerated NV-1408-0009
- Program Management for Contract Administration DD-1408-0004

Control
- A-7E C-8185 Armament Station Control Unit Intermediate Maintenance NV-1704-0203
- Air Control, Class O NV-1704-0011
- Air Defense Control Officer, Automated System MC-2204-0030
- Air Support Control Officer MC-1715-0078
- AN/AWM-55(V) Armament Station Control Unit Test Set Intermediate Maintenance NV-1715-0174
- Command and Control DD-1402-0001
- Control Panel Mk 309 Mod 0 Operation and Maintenance NV-1715-0381
- F-4B Airborne Missile Control System AERO 1-A Organizational Maintenance NV-1715-0362
- F-4B/J Armament, Missile and Weapons Control System Maintenance NV-1715-0632
- F-4B/J Armament, Missile and Weapons Control System Organizational Maintenance NV-1715-0632
- F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance NV-1715-0706
- F-4J AN/AWG-10 Missile Control System (Enlisted) Familiarization NV-1704-0231
- H-53 Automatic Flight Control System Organizational Maintenance NV-1704-0133
- QH-50C Target Control System AN/SRW-4B Intermediate Maintenance NV-1715-0418
- Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance NV-1715-0871 NV-1715-0878

Controller
- Air Intercept Controller NV-1704-0002
- Air Intercept Controller Supervisor NV-1704-0005
- Basic Naval Tactical Data System (NTDS) Air Intercept Controller NV-1715-0674
- Carrier Air Traffic Control Center Controller Class C/O NV-1704-0012
- Ground Controlled Approach Controller, Class C NV-1715-0123
- Naval Aviation Observer (Controller), Class O NV-1704-0197

Controllers
- Circuit Breakers and Controllers NV-1715-0898
- Controllers and Circuit Breakers Combined Maintenance NV-1715-0898
- Controllers Circuit Breakers, Class F1 NV-1715-0898

Controlman
- Air Controlman, Class A NV-1704-0004
- Air Controlman, Class B NV-1704-0007
- Air Controlman (Radar), Class A NV-1704-0010
- Air Controlman T (Tower), Class A NV-1704-0008
- Air Controlman W (Early Warning), Class A NV-1704-0009
- Damage Controlman CG-1710-0001
- Damage Controlman First Class by Correspondence CG-1710-0003
- Damage Controlman Second Class by Correspondence CG-1710-0004

Controlmen
- Damage Controlmen Class A HT-A Phase I NV-1728-0012

Controls
- Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1 NV-1715-0892
- Steam Plant Automatic Controls Maintenance (Bailey Meter) NV-1710-0074
- Steam Plant Automatic Controls Maintenance (General Regulator) NV-1710-0072
- Steam Plant Automatic Controls Maintenance (Hagan) NV-1710-0073

Conventional
- A-4 Conventional Weapons Training NV-2202-0077
- A-6A Conventional Weapons NV-2202-0015

Conversion
- 3306/3309 FTB Conversion Training NV-1715-0887

Converter
- 60/400 Hz Power Converter Maintenance, Class C1 NV-1715-0301
- RA-5C Signal Data Converter Group Test Equipment Intermediate Maintenance NV-1715-0032

Cook
- Advanced Cook

MC-1729-0003
Basic Specialist Training Cook MC-1729-0017
Cook, Basic Specialist Training MC-1729-0017

Coordination
Rescue Coordination Center for Reservists CG-0802-0005

Copilot
S-3A Copilot Avionics NV-1606-0057

Corpsman
Advanced Hospital Corpsman NV-0709-0008
Basic Hospital Corpsman, Class A CG-0703-0001
Hospital Corpsman, Advanced NV-0709-0008
Hospital Corpsman (HM) CG-0709-0001

Correlator
RF-4B Photographic Film Correlator-Processor Set ES-55A Intermediate Maintenance NV-1715-0751

Correspondence
Aviation Corrosion Control by Correspondence CG-1704-0016
Aviation Electrician Mate, First Class, by Correspondence CG-1714-0004
Aviation Electrician Mate, Second Class, by Correspondence CG-1714-0003
Aviation Electrician's Mate, First Class, by Correspondence CG-1714-0004
Aviation Electrician's Mate, Second Class, by Correspondence CG-1714-0003
Aviation Electronics Technician, First Class, by Correspondence CG-1715-0032
Aviation Electronics Technician, Second Class, by Correspondence CG-1715-0031
Aviation Machinist Mate, First Class, by Correspondence CG-1704-0008
Aviation Machinist Mate, Second Class, by Correspondence CG-1704-0007
Aviation Machinist's Mate, First Class, by Correspondence CG-1704-0008
Aviation Machinist's Mate, Second Class, by Correspondence CG-1704-0007
Aviation Structural Mechanic, First Class, by Correspondence CG-1704-0015
Aviation Structural Mechanic, Second Class, by Correspondence CG-1704-0013
Aviation Survivalman, First Class, by Correspondence CG-1704-0019
Aviation Survivalman, Second Class, by Correspondence CG-1704-0018
Boating Safety by Correspondence CG-0802-0001
Boatswain's Mate First Class by Correspondence CG-1708-0004
Boatswain's Mate Second Class by Correspondence CG-1708-0003
Boatswain's Mate Third Class by Correspondence CG-1708-0002
Celestial Navigation by Correspondence CG-1304-0004
Closed Circuit Television Systems by Correspondence CG-1715-0064
Damage Controlman First Class by Correspondence CG-1710-0003
Damage Controlman Second Class by Correspondence CG-1710-0004
Electrician Mate First Class by Correspondence CG-1714-0011
Electrician Mate Second Class by Correspondence CG-1714-0010
Electrician's Mate First Class by Correspondence CG-1714-0011
Electrician's Mate Second Class by Correspondence CG-1714-0010
Electrician's Mate Third Class by Correspondence CG-1714-0005
Electronics Technician First Class by Correspondence CG-1715-0038
Electronics Technician Second Class by Correspondence CG-1715-0037
Electronic Technician First Class by Correspondence CG-1715-0038
Electronic Technician Second Class by Correspondence CG-1715-0037
Fire Control Technician First Class by Correspondence CG-1715-0036
Fire Control TEchnician Second Class by Correspondence CG-1715-0035
Fireman by Correspondence CG-1722-0001
Flight Mechanic HH-52A by Correspondence CG-1704-0010
Fundamentals of Electronics by Correspondence CG-1715-0061
Gas Turbine by Correspondence CG-1731-0002
Gunner's Mate First Class by Correspondence CG-1714-0012
Gunner's Mate Second Class by Correspondence CG-1714-0009
HC-130 Avionicsman by Correspondence CG-1715-0040
HC-130 Flight Engineer by Correspondence CG-1704-0009
HH-3F Avionicsman by Correspondence CG-1715-0039
HH-3F Flight Mechanic by Correspondence CG-1704-0011
Ice Observer by Correspondence CG-1304-0006
Industrial Hydraulics by Correspondence CG-1704-0014
Junior Officer Electronic Indoctrination by Correspondence CG-1715-0062
Machinery Technician First Class by Correspondence CG-1723-0001
Machinery Technician Second Class by Correspondence CG-1723-0002
Machinery Technician Third Class by Correspondence CG-1723-0003
Marine Science Technician by Correspondence CG-1304-0003
Meteorology by Correspondence CG-1304-0008
National Security Management (Correspondence Course of the Industrial College of the Armed Forces) DD-1511-0001
Navigation Rules by Correspondence CG-1708-0005
Oceanography by Correspondence CG-1304-0005
Piloting by Correspondence CG-1708-0006
Quartermaster First Class by Correspondence CG-1304-0007
Quartermaster Second Class by Correspondence CG-1722-0002
Quartermaster Third Class by Correspondence CG-1722-0003
Radar Theory and Maintenance by Correspondence CG-1715-0065
Radioman Second Class by Correspondence CG-1404-0002
Shore Structure Maintenance by Correspondence CG-1710-0005
Sonar Technician First Class by Correspondence CG-1715-0034
Sonar Technician Second Class by Correspondence CG-1715-0033
Telephone Technician Second Class by Correspondence CG-1715-0063

Corrosion
Aviation Corrosion Control by Correspondence CG-1704-0016

Counseling
Instructor, Class C-1 Administration and Counseling NV-1408-0008
Instructor, Class C (Career Information and Counseling) NV-1406-0004
Personnelman, Class C (Career Information and Counseling) NV-1406-0004

Counselor
Navy Drug Abuse Counselor

NV-0801-0007

Counter-Countermeasures
Operations Officer Electronic Counter-Countermeasures (ECCM) MC-1715-0067
Technician Electronic Counter-Countermeasures MC-1715-0001

Counterinsurgency
Counterinsurgency Orientation NV-2202-0081
Counterinsurgency Pre-Deployment NV-1728-0003
Counterinsurgency/Self-Protection/SERE NV-1511-0001
Counterinsurgency Training NV-1728-0001

Countermeasure
AN/ALQ-108 Countermeasure Set Intermediate Maintenance NV-1715-0285
F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance NV-1715-0371
RA-5C AN/ALQ-61 Countermeasure Set Shop Maintenance NV-1715-0367

Countermeasures
Airborne Early Warning/Electronics Countermeasures Evaluator, Class O NV-1715-0599
AN/ALQ-51A Countermeasures Internal Set Maintenance NV-1715-0187
AN/ALQ-51A Countermeasures Set NV-1715-0528
AN/ALQ-81/100 Countermeasures Set Maintenance NV-1715-0196
AN/ALQ-92 Countermeasures Set Intermediate Maintenance NV-1715-0055
AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance NV-1715-0053
AN/ALQ Countermeasures Set Intermediate Maintenance NV-1715-0196
AN/ALR-45 Countermeasures Receiving Set Intermediate Maintenance NV-1715-0933
AN/ALR-54 Countermeasures Receiving Set Intermediate Maintenance NV-1715-0775
AN/SLQ-19 and AN/SLQ-26(V) with AN/SLD-1 Countermeasures Set Maintenance NV-1715-0842
AN/SPA-37/37A Radar Sets, AN/SPA-63 Countermeasures Receiving Group, and AN/SPS-43/43A Radar Sets Differences NV-1715-0790
AN/SPA-62 Countermeasures Receiving Group, Class C NV-1715-0645
Countermeasures Receiving Set AN/WLR-11A NV-1715-0841
Countermeasures Receiving Set AN/WLR-1C (IV) Class F-1 NV-1715-0817
Countermeasures Set AN/SLQ-26, Class C-1 NV-1715-0842
EKA-3B AN/ALQ-92 Countermeasures Set Intermediate Maintenance NV-1715-0361
Electronics Technician Class C, R-1524(P)/WRR Countermeasures Receiver Maintenance NV-1715-0028
Electronic Warfare Technician, Class A (A-3), Electronic Countermeasures Systems Maintenance NV-1715-0781
F-4B/J-RF-4B AN/ALQ-88 Countermeasures Set Intermediate Maintenance NV-1715-0393
RA-5C AN/ALQ-61 Countermeasures Set Special Support Equipment NV-1715-0686
RA-5C AN/ALQ-61 Passive Electronics Countermeasures Organizational Maintenance NV-1715-0366
RA-5C Semi-Automatic Test Equipment, Programmer, System Analyzer and Countermeasures Test Bench AN/ULM-1 Intermediate Maintenance NV-1715-0176

Coupler
Antenna Coupler CU-1441 Combined Maintenance NV-1715-0132
AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group CG-1715-0058
Coupler, Antenna CU-1441/BRR Checkout and Maintenance NV-1715-0132
Electronics Technician, AN/URC-9, AN/SRC-20,AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance NV-1715-0088

Course
EA-6B Course Attitude Data Transmitter Intermediate Maintenance NV-1715-0192
T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B) NV-1715-0192

Court
Legal Clerk and Court Reporting NV-1407-0002

Coxswain
Assault Boat Coxswain NV-1708-0006

CP-413/ASA-27
Computer Detector (CP-413/ASA-27) Intermediate Maintenance NV-1715-0111
E-2A Computer Detector (CP-413/ASA-27) and Computer Detector Test Console (OA-3731/ASM-76) Intermediate Maintenance NV-1715-0340

CP-642A
Data Systems Technician, Class A(Phase A-2)—Part II, CP-642A/642B/USQ-20(V) Digital Data Computer Maintenance NV-1715-0044
Data Systems Technicians, Class A, (Phase A-2)—Part III, CP-642A NV-1715-0045

CP-642B
Data Systems Technician, Class A(A-2), Part II CP-642B NV-1715-0044

CP-66A
A3B AN/ASB-1A System Maintenance (Less Computer CP-66A) NV-1715-0281
A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance NV-1715-0263

CP-901/ASQ-114
P-3C CP-901/ASQ-114 Computer Organizational Maintenance NV-1402-0040

CP-967/UYK
CP-967/UYK Computer Maintenance (Electronics Technician, Class C1) NV-1402-0016

Craft
Landing Craft Beach and Surf Salvage NV-1708-0002
River Assault Craft Training NV-1708-0001
River Patrol Craft Training NV-1722-0010

Crash
Aviation Crash Crewman Class C NV-1728-0006

Crew
Swift Boat Crew Training NV-1722-0009
Weapons Systems Technician (Crew Member) Organizational Maintenance NV-1715-0411
Weapon System Specialist (Crew Leader) Maintenance NV-1715-0410

Crushing
EO"C" Crushing and Screening Operations NV-1710-0043

Cryogenerator
Compressed Gases Cryogenerator Maintenance, Class C NV-1601-0001

Cryogenics
Cryogenics, Class C NV-1501-0010

Cryptanalysis
Reserve Cryptologic Technician, Basic Cryptanalysis NV-1715-0824
Reserve Cryptologic Technician—Intermediate Cryptanalysis NV-1715-0820
Reserve Naval Security Group-13.1 Intermediate Cryptanalysis NV-1715-0820

Cryptographer
Cryptographer MC-1409-0003

Cryptographic
Cryptographic Equipment Maintenance Preparatory MC-1715-0065

Cryptologic
Cryptologic Technician A (Administration)—Class A NV-1715-0400
Cryptologic Technician Collection

Branch NV-1715-0836
Cryptologic Technician Communications Rating, Class A NV-1715-0850
Cryptologic Technician Maintenance NV-1715-0829
Cryptologic Technician M AN/FLR-15 Maintenance, Class C3 NV-1715-0835
Cryptologic Technician M, Basic Bullseye Maintenance NV-1715-0818
Cryptologic Technician M, Bullseye Narrowband Maintenance NV-1715-0819
Cryptologic Technician M, Bullseye Wideband Maintenance NV-1715-0830
Cryptologic Technician M, Class A3 NV-1715-0829
Cryptologic Technician M, Flexscop Maintenance, Class C3 NV-1715-0828
Cryptologic Technician O, Class A3 NV-1715-0850
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800
Cryptologic Technician O, Tactical Communications Systems Operations and Management, Class C3 NV-1715-0849
Cryptologic Technician R, Class A3 NV-1715-0836
Cryptologic Technician R High Frequency Direction Finder (HFDF) Operator NV-1715-0833
Cryptologic Technician T, Class A3 Preparatory NV-1715-0837
Cryptologic Technician Technical Basic Preparatory, Class A NV-1715-0837
Cryptologic Technician Technical Field Operations, Type One NV-1715-0838
Cryptologic Technician Technical Field Operations Type Three NV-1715-0840
Cryptologic Technician Technical Field Operations, Type Two NV-1715-0839
Cryptologic Technician T, Field Operations Type One, Class A3, Special Non-Morse NV-1715-0838
Cryptologic Technician T, Field Operations Type Three, Class A3, AN/FLR-11/15 Operations NV-1715-0840
Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse NV-1715-0839
Cryptologic Technician T, Flexscop Operator NV-1715-0843
Cryptologic Technician T, Flexscop Programmer, Class C3 NV-1715-0846
National Cryptologic School Resident Language Courses DD-0602-0011
Reserve Cryptologic Technician, Basic Cryptanalysis NV-1715-0824
Reserve Cryptologic Technician Communications Technical Control, Class F1 NV-1715-0848
Reserve Cryptologic Technician Direct Support NV-1715-0834
Reserve Cryptologic Technician—Intermediate Cryptanalysis NV-1715-0820
Reserve Cryptologic Technician Naval Security Group Orientation NV-1715-0823
Reserve Cryptologic Technician Processing and Reporting, Phase I NV-1715-0821
Reserve Cryptologic Technician Processing and Reporting, Phase II NV-1715-0822
Reserve Cryptologic Technician Signal Analysis, Class F1 NV-1715-0845
Reserve Cryptologic Technician Simulated Operational Training Phase I NV-1715-0825
Reserve Cryptologic Technician Simulated Operational Training Phase II NV-1715-0826
Reserve Cryptologic Technician Simulated Operational Training Phase III NV-1715-0827
Reserve Cryptologic Technician T, Advanced, Class F1 NV-1715-0844

CU-1441
Antenna Coupler CU-1441 Combined Maintenance NV-1715-0132
Antenna Series (CU-1441/BRR Multicoupler) NV-1715-0132
Coupler, Antenna CU-1441/BRR Checkout and Maintenance NV-1715-0132

CU-1441/BRR
Antenna Series (CU-1441/BRR Multicoupler) NV-1715-0132
Coupler, Antenna CU-1441/BRR Checkout and Maintenance NV-1715-0132

CUDIXS
Common User Digital Information Exchange System (CUDIXS) Maintenance NV-1715-0872
Common Users Digital Information Exchange System (CUDIXS) Operators NV-1715-0879

Culture
Tissue Culture Technic NV-0702-0001
Tissue Culture Technician, Class C NV-0702-0001

CVA
Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C NV-1710-0006
CVA Catapult Electrician, Class C NV-1710-0010
CVA Catapult Steam and Drain System, Class C NV-1710-0008
CVA IOIC Storage and Retrieval Officer NV-1402-0043
Nuclear Weapons Technical (CVA) NV-0802-0006

CVA/CVS
CVA/CVS Air Launched Weapons NV-0802-0009
CVA/CVS Air Launched Weapons General Ordnance NV-2202-0024
CVA/CVS Air Launched Weapons Supervisor NV-0802-0009

CVS
CVS Catapult, Arresting Gear, and Visual Landing Aids, Class C. NV-1710-0007

CVS/MAUW
CVS/MAUW Shop Nuclear Weapons Technical NV-0802-0005

CWAT
Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT) NV-1715-0693

Cytotechnologist
Cytotechnologist NV-0702-0009

Czech
Czech DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0006

D-704
Douglas Model D-704 and Sargent-Fletcher Model 31-300 Air Refueling Stores Organizational Maintenance NV-1704-0046

Damage
Damage Control Assistant NV-1728-0011
Damage Controlman CG-1710-0001
Damage Controlman Class C CG-1710-0002
Damage Controlman First Class by Correspondence CG-1710-0003
Damage Controlman Second Class by Correspondence CG-1710-0004
Damage Controlman Welding, Class C CG-1710-0002
Damage Controlmen Class A HT-A Phase I NV-1728-0012
Damage Control Welding, Class C CG-1710-0002
DD963 Centralized Damage Control Console Operator, Class C1 NV-1601-0015
DD963 Centralized Damage Control System Console Maintenance, Class C1 NV-1601-0016
Officer Damage Control NV-1710-0058

DAME
AN/SRN-15 TACAN Distance Azimuth

Measuring Equipment (DAME) Maintenance (Electronics Technician, Class C1)
NV-1715-0175

Danish

Danish
DD-0602-0001
DD-0602-0002

Data

A-3 Bombing Data Computer CP-66A/ASB-1 Maintenance
NV-1715-0263

Airborne Tactical Data System Operations, Class O
NV-1402-0036

AN/ASA-16 Data Display Group Maintenance Training
NV-1715-0488

Automatic Flight Control System (AN/ASW-15) And Air Data Computer (560T27-1) Organizational Maintenance
NV-1715-0741

Aviation Maintenance Data Analysis, Class C
NV-1402-0018

Basic Naval Tactical Data System (NTDS) Air Intercept Controller
NV-1715-0674

C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance
NV-1715-0461

Data Analysis, Class C
NV-1402-0018

Data Analysis (Ship's 3-M System) Class C
NV-1408-0005

Data Base Management—LCC Amphibious Support Information System Language—Operator
NV-1402-0034

Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1
NV-1715-0895

Data Gathering Set AN/BQH-5(V)2 Basic Maintenance
NV-1715-0502

Data Handling Repair
MC-1715-0019

Data Systems Technician Class C Data Display Group Maintenance
NV-1715-0108

Data Systems Technician, Class C, Data Transmission Group, Data Terminal
NV-1715-0091

Data Systems Technician—Data Conversion Group Equipment Maintenance, Class C
NV-1715-0083

Data Systems Technician (Shipboard Tactical Data Systems Officer and Senior Technician Maintenance) Class C
NV-1402-0041

Data Systems Technician (Shipboard Tactical Data Systems Senior Technician) Class C
NV-1402-0041

DD963 Naval Tactical Data System (NTDS) Data Utilization
NV-1402-0023

DD963 Naval Tactical Data Systems (NTDS) Data Input
NV-1402-0010

E-2A AN/ACQ-2 and AN/ACQ-2A Data Terminal Sets Intermediate Maintenance
NV-1715-0254

E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance
NV-1715-0527

E-2A AN/ASQ-52 Data Communication System Special Support Equipment Intermediate
NV-1715-0382

E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13)
NV-1715-0460

E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance
NV-1715-0478

E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance
NV-1715-0347

E-2B Airborne Tactical Data Systems (ATDS) Operator Training
NV-1715-0777

EA-6B Course Attitude Data Transmitter Intermediate Maintenance
NV-1715-0192

Electronics Technician Class C, Data Transmission Group, Transmission Equipment Maintenance
NV-1715-0026

Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance
NV-1715-0296

F-4B/J Air Data Computer Set Intermediate Maintenance
NV-1715-0552

F-4J Data Link System Intermediate Maintenance
NV-1715-0499

IBM System 360 (OS) Data Control Techniques
MC-1402-0042

IBM System 360 (OS) Data Management
MC-1402-0039

IBM System 360 OS System Control and Data Management
MC-1402-0038

Intermediate Maintenance Level Data Analysis, Class C
NV-1115-0001

IOIC Intelligence Data System (Storage and Retrieval) Maintenance
NV-1715-0030

Marine Tactical Data System (MTDS) Technician
MC-1715-0043

Marine Tactical Data System (MTDS) Weapons Controller/Operator
MC-1715-0021

Mobile Data Communications Terminal Technician
MC-1715-0081

Naval Data Automated Computer (NAVDAC) Advanced Training
NV-1715-0926

Naval Tactical Data System (NTDS) Basic Programmer (Operational)
NV-1402-0002

Naval Tactical Data System (NTDS)—Data Input—Basic
NV-1715-0673

Naval Tactical Data System (NTDS)—Data Utilization—Basic
NV-1402-0005

Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C
NV-1402-0032

Naval Tactical Data System (NTDS) Tracker/Supervisor
NV-1715-0673

Naval Tactical Data System Operations, Class O
NV-1402-0037

Naval Tactical Data Systems Data Transmission Group Maintenance
NV-1715-0273

Naval Tactical Data Systems (NTDS)—Data Collection and Display (Basic Enlisted)
NV-1402-0003

Naval Tactical Data Systems (NTDS) Data Utilization
NV-1402-0006

Naval Tactical Data Systems (NTDS) Evaluator/Supervisor
NV-1402-0006

Naval Tactical Data Systems (NTDS) Intermediate Programmer Course (CS-1)
NV-1402-0004

NTDS Data Utilization
NV-1402-0005

P-3 AN/AQA-5 Sonar Data Recording System Maintenance, No. 46
NV-1715-0121

P-3C Digital Data Handling Organizational Maintenance
NV-1715-0330

Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1
NV-1715-0915

Programming Naval Tactical Data System (NTDS) Operational (Officer and Enlisted)
NV-1402-0031

RA-5C Air Data and Flight Reference Systems
NV-1715-0454

RA-5C Air Data and Flight Reference Systems Organizational Maintenance
NV-1715-0454

RA-5C AN/AYA-1 Signal Data Converter Group Intermediate Maintenance
NV-1715-0424

RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance
NV-1715-0542

RA-5C Signal Data Converter Group Test Equipment Intermediate Maintenance
NV-1715-0032

RF-4B AN/ASQ-90 Airborne Data Annotation System Maintenance
NV-1715-0240

Shipboard Tactical Data Systems Maintenance
NV-1402-0041

SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 2 Mod 1
NV-1715-0242
NV-1715-0427

T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance

(EA-6B) NV-1715-0192

Tactical Air Operations Central (TAOC) Data Handling Repair MC-1715-0019

Tactical Data Communications Central Repairman MC-1715-0077

Tactical Data Communications Central (TDCC AN/TYQ-3) Technician MC-1715-0026

Tactical Data Communications Central Technician MC-1715-0026

Tactical Data Systems Maintenance Officer/Program Officer NV-1402-0041

Talos Telemetering Data Reduction NV-2202-0082

Terrier Telemetering Data Reduction NV-2202-0083

Data Processing

A-6 Data Processing Unit and Associated Test Set Intermediate Maintenance NV-1715-0650

Automatic Data Processing (ADP) Orientation MC-1402-0014

Automatic Data Processing (ADP) Orientation (7E) MC-1402-0044

Data Processing Installation Management MC-1402-0020

Data Processing Installation Management Seminar MC-1402-0020

Data Processing Installation Managers Seminar MC-1402-0020

Data Processing Systems Analysis, Class C NV-1402-0001

Data Processing Technician, Class A NV-1402-0022

Data Processing Technician, Class C, Systems Analysis and Design NV-1402-0001

Fleet Data Processing Officers Training NV-1402-0008

IOIC Electronic Data Processing Maintenance NV-1715-0581

Data Systems

Advanced Data Systems Officer MC-1402-0021

Data Systems (Enlisted) MC-1402-0017

Data Systems Officer MC-1402-0025

Data Systems Officers MC-1402-0025

Data Systems Technician, Class A(A-2), Part II CP-642B NV-1715-0044

Data Systems Technician, Class A (DS "A") NV-1715-0753

Data Systems Technician, Class A, Phase A-1 NV-1715-0753

Data Systems Technician, Class A(Phase A-2)—Part II, CP-642A/642B/USQ-20(V) Digital Data Computer Maintenance NV-1715-0044

Data Systems Technician, Class C, AN/UYK-5(V) Peripheral Maintenance NV-1715-0087

Data Systems Technician Class C Data Display Group Maintenance NV-1715-0108

Data Systems Technician, Class C, Data Transmission Group, Data Terminal NV-1715-0091

Data Systems Technician, Class C, Mk 11, Mod 2/4 Systems Group Maintenance NV-1715-0048

Data Systems Technician, Class C, Peripherial Group RD-281(V)/UYK Recorder Reproducer Magnetic Disk File Equipment Maintenance NV-1715-0656

Data Systems Technician, Class C, Weapon Direction System Mk XI Mod 0/1 Maintenance Training NV-1715-0385

Data Systems Technician—Data Conversion Group Equipment Maintenance, Class C NV-1715-0083

Data Systems Technician—Peripheral Equipment Maintenance, Class C NV-1715-0047

Data Systems Technician RD-294/UYK Magnetic Tape Unit Maintenance, Class C NV-1715-0110

Data Systems Technician School, Class A (Phase A-2)—Part I, CP-789 NV-1715-0043

Data Systems Technicians, Class A, (Phase A-2)—Part III, CP-642A NV-1715-0045

E-2B Airborne Tactical Data Systems NV-1704-0226

E-2B Airborne Tactical Data Systems (ATDS) Operator Training NV-1715-0777

E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer) NV-1704-0225

Marine Tactical Data Systems (MTDS) Fundamentals MC-1715-0017

Naval Tactical Data Systems Data Transmission Group Maintenance NV-1715-0273

Naval Tactical Data Systems Maintenance NV-1715-0274

Tactical Data Systems Analysis NV-1402-0042

Tactical Data Systems Digital Repair MC-1715-0035

DATC

DATC Machinist's Mate Maintenance NV-1732-0005

DD963

DD963 Basic Circuit Concepts for Gas Turbine Controls, Class C1 NV-1402-0020

DD963 Centralized Damage Control Console Operator, Class C1 NV-1601-0015

DD963 Centralized Damage Control System Console Maintenance, Class C1 NV-1601-0016

DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1 NV-1715-0869

DD-963 Facilities Control Quality Monitoring Processing Unit Operators NV-1715-0869

DD963 Naval Tactical Data System (NTDS) Data Utilization NV-1402-0023

DD963 Naval Tactical Data Systems (NTDS) Data Input NV-1402-0010

Radio Communications System Maintenance for DD963 Class Ships, Class C-1 NV-1715-0870

SSM Degaussing System for DD963 Class Destroyer, Class C1 NV-1601-0017

Deception

Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22A(V)2 NV-1715-0781

Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22B(V)1 NV-1715-0781

Electronic Warfare Technician, Class A (A-3), Deception Repeater Systems Maintenance NV-1715-0781

Decision

Defense Economics and Decision Making Off-Campus Graduate Seminar NV-1511-0006

Defense Economics and Decision Making Self-Administered Seminar (Naval War College) NV-1511-0008

Naval War College Correspondence Course in Defense Economics and Decision Making NV-1511-0005

Deck

Prospective Officer of the Deck NV-1722-0008

DECM

A3B, RA3B, EA3B AN/ALQ-35 DECM System Maintenance NV-1715-0525

RA-5C AN/ALQ-55 DECM System NV-1715-0687

RA-5C Communication Navigation Identification (CNI) and DECM Organizational Maintenance NV-1704-0075

Decoder

RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance NV-1715-0797

Decoy

Shipboard Decoy System (CHAFFROC) Launcher Operation and Maintenance Mk 28 Mod 1–5 NV-1715-0684

Deep Sea

Deep Sea Divers NV-1606-0014

Deep Sea Helium-Oxygen Diving Officers NV-1606-0009

Medical Deep Sea Diving Technic NV-1606-0014

Medical Deep Sea Diving Technician

NV-1606-0014

Defense
ABC Warfare Defense Afloat NV-0802-0008
Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors NV-0802-0001
Basic Point Defense Officer NV-1715-0570
Basic Point Defense Surface Missile System NV-1715-0778
Defense Economics and Decision Making Off-Campus Graduate Seminar NV-1511-0006
Defense Economics and Decision Making Self-Administered Seminar (Naval War College) NV-1511-0008
Defense Equal Opportunity Management Institute DD-1512-0001
Defense Intelligence Course DD-1511-0004
Defense Language Institute Advanced Courses DD-0602-0007
Defense Language Institute Aural Comprehension Courses DD-0602-0003
Defense Language Institute Basic Courses (1954–1956) DD-0602-0001
Defense Language Institute Basic Courses (After 1956) DD-0602-0002
Defense Language Institute Courses—East Coast Branch DD-0602-0009
Defense Language Institute Extended or Basic-Intermediate Courses DD-0602-0005
Defense Language Institute Intermediate Courses DD-0602-0006
Defense Language Institute Short Basic Courses DD-0602-0004
Defense Language Institute Special Courses DD-0602-0008
Defense Language Institute Support Command Courses DD-0602-0010
Defense Management Systems NV-1408-0003
Defense Race Relations Institute DD-1512-0001
Defense Security Assistance Management Core DD-1408-0001
Defense Security Assistance Management Overseas DD-0327-0001
Inter-American Defense College DD-1511-0005
Naval War College Correspondence Course in Defense Economics and Decision Making NV-1511-0005
NBC Defense for Petty Officers NV-1728-0009
Nuclear, Biological and Chemical (NBC) Defense Ashore NV-0801-0005
Nuclear, Biological and Chemical (NBC) Defense for Petty Officers NV-0801-0004
Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore NV-0801-0005

Degaussing
SSM Degaussing System for DD963 Class Destroyer, Class C1 NV-1601-0017

Delivery
Weapons Delivery System (Officers) NV-2202-0047

Demolition
Basic Underwater Demolition/Seal Team Training NV-1606-0007
Basic Underwater Demolition/Seal Training NV-1606-0007
Underwater Demolition Training NV-1606-0007
Underwater Demolition Training (Enlisted) NV-1606-0007
Underwater Demolition Training (Officer) NV-1606-0007

Dental
Basic Dental Repair Technician NV-1715-0680
Class A General Dental Technician School NV-0701-0006
Class B General Dental Technician NV-0701-0009
Class B General Dental Technician School NV-0701-0005
Dental Officer Indoctrination NV-0701-0002
Dental Prosthetic Technician School, Class C NV-0701-0007
Dental Repair Technician, Basic NV-1715-0680
Dental Technician, Advanced General, Class B NV-0701-0009
Dental Technician, Advanced Prosthetic, Class B NV-0701-0003
Dental Technician A School CG-0701-0001
Dental Technician, Basic, Class A NV-0701-0006
Dental Technician, General, Advanced, Class B NV-0701-0005
Dental Technician, General, Class A NV-0701-0006
Dental Technician, Maxillofacial Prosthetic NV-0701-0001
Dental Technician, Maxillofacial Prosthetic, Class C NV-0701-0001
Dental Technician, Prosthetic, Advanced, Class B NV-0701-0003
Dental Technician, Prosthetic, Class C NV-0701-0007
Dental Technician Repair, Class C NV-1715-0680
Dental Technician Research Assistant, Class C NV-0701-0004
General Dental Technician Advanced, Class B NV-0701-0005
General Dental Technician School, Class B NV-0701-0005
Medical Administrative Technic, Dental NV-1408-0021
Medical Administrative Technician (Dental), Class C NV-1408-0021

Depot
Depot Level Boat Repairman (Engineman) NV-1712-0013

Depth
Electronic Hovering and Depth Control Combined Maintenance NV-1715-0934

Dermatology
Dermatology Technic NV-0709-0013
Dermatology Technician, Class C NV-0709-0013

Design
Data Processing Technician, Class C, Systems Analysis and Design NV-1402-0001

Designation
Target Designation System Mk 5 Maintenance NV-1715-0264
Target Designation System Mk 5 Shipboard Maintenance NV-1715-0315

Destroyer
Destroyer Officer NV-1722-0006
SSM Degaussing System for DD963 Class Destroyer, Class C1 NV-1601-0017

Detecting
RA-5C AN/AAS-21 Infrared Detecting Set Intermediate Maintenance NV-1715-0222
Sonar Detecting Ranging Set AN/BQS-11/12/13 Combined Maintenance NV-1715-0865
Sonar Detecting/Ranging Set AN/BQS-8/10/14/20 Combined Maintenance NV-1715-0868
Sonar Detecting-Ranging Set AN/SQS-26CX NV-1715-0405

Detection
E-2B Detection System Organizational Maintenance NV-1715-0769

Detector
Computer Detector (CP-413/ASA-27) Intermediate Maintenance NV-1715-0111
E-2A Computer Detector (CP-413/ASA-27) and Computer Detector Test Console (OA-3731/ASM-76) Intermediate Maintenance NV-1715-0340
OA-3731/ASM-76 Computer Detector Test Console Intermediate Maintenance NV-1715-0798

Determination
Self-Noise Determination and Classification

NV-1601-0012

Dial
Mobile Dial Central Technician MC-1715-0085

Diary
Unit Diary Clerk MC-1403-0001

Diesel
American Locomotive (ALCO 251C) Diesel Engine, Class C1 NV-1712-0010
Detroit Diesel V71 Series Engine Maintenance, Class C1 NV-1712-0019
Diesel Engine and Electrical Operation and Maintenance (Caterpillar Models D-397-399, D-333, D-343, D-353, D-379) CG-1712-0002
Diesel Engine Technician, Class C1 NV-1712-0020
Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine NV-1712-0010
Engineman Fairbanks-Morse 38D 8 1/8 DR Diesel Engine NV-1712-0014
Enginemen, Class C, General Motors 12-567E Diesel Engine NV-1712-0006
Enginemen, Class C, General Motors 16-278A Diesel Engine NV-1712-0005
Enginemen, Class C, General Motors 8-268A Diesel Engine NV-1712-0007
Enginemen, Diesel Engine, Class C NV-1712-0017
Fairbanks Morse 38F5 1/4 Diesel Engine NV-1712-0003
FM38D8 1/8 DR Diesel Engine, Class C1 NV-1712-0014
GM-12-567E/645E Diesel Engine, Class C1 NV-1712-0006
GM-16-278A Diesel Engine, Class C1 NV-1712-0005
GM 268A Diesel Engine, Class C1 NV-1712-0007
Mine Warfare Packard Diesel Engineman (Class C) NV-1712-0012
Mine Warfare Waukesha Diesel Engineman, Class C NV-1712-0004
SSN/SSBN Diesel Engine (Fairbanks-Morse) Maintenance NV-1712-0002
Waukesha Diesel Engine NV-1712-0001

DIFAR
DIFAR Training for Acoustic Operators P3A/B(D) and P3C NV-1715-0704
Jezebel Gram Analysis for AW's P3A/B (DIFAR Retrofit) NV-1715-0704

Difference
AN/SPS-40B/C/D Radar Set Difference Maintenance NV-1715-0745
E-2B OA-8206/ASA-27A Difference Organizational Maintenance NV-1715-0508

Differences
AIMS Mk XII System Differences Equipment Maintenance, Class C-1 NV-1715-0813

Digital
A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment NV-1402-0044
Basic Digital Computer Theory NV-1715-0904
Basic Digital Fundamentals, Class F1 NV-1715-0904
Common User Digital Information Exchange System (CUDIXS) Maintenance NV-1715-0872
Common Users Digital Information Exchange System (CUDIXS) Operators NV-1715-0879
Data Systems Technician, Class A(Phase A-2)—Part II, CP-642A/642B/USQ-20(V) Digital Data Computer Maintenance NV-1715-0044
Digital, Analog, and Hybrid Computer Fundamentals NV-1402-0013
Digital and Analog Computer Fundamentals NV-1402-0012
Digital Fundamentals NV-1402-0011
Digital Fundamentals, Basic NV-1715-0904
Digital Principles and Techniques (Electronics Technician, Class C1) NV-1402-0027
Digital Repair MC-1715-0018
E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance NV-1715-0347
Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer NV-1715-0353
Fundamentals of Digital Logic MC-1402-0001
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884
P-3C Digital Data Handling Organizational Maintenance NV-1715-0330
Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language) NV-1402-0033
RA-5C AN/ASB-12 Verdan and Digital Test Equipment Intermediate Maintenance NV-1402-0044
Tactical Air Operations Central (TAOC) Digital Repair MC-1715-0018
Tactical Data Systems Digital Repair MC-1715-0035
Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS) NV-1715-0658

Direction
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800
High Frequency Direction Finding (HFDF) Communications Technical Control NV-1715-0800
Radio Direction Finder AN/BRD-6 Combined Maintenance NV-1715-0903
Radio Direction Finder AN/BRD-6 Operational Maintenance NV-1715-0903

Director
Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance NV-1715-0271
Mk 68 Gun Director and AN/SPG-53F Radar Maintenance NV-1715-0239

Disaster
Disaster Recovery Training I and II NV-0801-0003
Staff Disaster Preparedness Officer NV-0801-0002

Disbursing
Advanced Disbursing Clerk MC-1408-0002
Advanced Disbursing Man MC-1408-0007
Advanced Disbursing Man Leadership MC-1408-0007
Basic Disbursing Clerk MC-1403-0003
Disbursing Clerk, Class C (Financial Returns NV-1408-0001
Disbursing Clerk, Class C (Travel Payments) NV-1408-0002
Disbursing Clerk Course MC-1408-0001
Disbursing Clerk Financial Returns Class C NV-1408-0001
Disbursing Clerk (Pay Records Maintenance) Class C NV-1401-0001
Disbursing Clerks, Class A NV-1401-0002
Disbursing Officer MC-1408-0013
Disbursing Officer Leadership MC-1408-0013
Food Services and Disbursing NV-1729-0001

Disease
Disease Vector and Pest Control Technology NV-0101-0001

Disk
Data Systems Technician, Class C, Peripherial Group RD-281(V)/UYK Recorder Reproducer Magnetic Disk File Equipment Maintenance NV-1715-0656
Disk Operating System Programming MC-1402-0004
IBM System 360 Disk Operating System (DOS) Operations MC-1402-0018

Display
AN/ASA-16 Data Display Group Maintenance Training

NV-1715-0488
AN/ASM-398 Projected Map Display Set (PMDS) Intermediate Maintenance
NV-1715-0529
AN/ASN-99 Projected Map Display Set Intermediate Maintenance
NV-1715-0162
AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E)
NV-1704-0229
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training
NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1
NV-1715-0908
Naval Tactical Data Systems (NTDS)—Data Collection and Display (Basic Enlisted)
NV-1402-0003
P-3 AN/ASA-16 Display System Intermediate Maintenance
NV-1715-0463

Disposal
Nuclear Weapons Disposal
NV-0802-0007

Distilling
Submarine Low Pressure and Vapor Compression Distilling Units, Enlisted
NV-1710-0025

Distribution
Electrical Distribution and Control
NV-1714-0005

Distributor
Teletypewriter Reperforator TT-253/UG Series and Teletypewriter Distributor TT187/UG Series
NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines
NV-1715-0664

Disturbed
Disturbed Line of Sight Gunfire Control System Maintenance
NV-1715-0759

Diver
Diver First Class
NV-1606-0008
Diver Second Class
NV-1606-0010
EOD Diver Candidates
NV-1606-0010
Master Diver Qualification
NV-1606-0016
Scuba Diver
NV-1606-0011
Underwater Photographer/Scuba Diver
NV-1606-0013

Divers
Deep Sea Divers
NV-1606-0014

Diving
Deep Sea Helium-Oxygen Diving Officers
NV-1606-0009
Medical Deep Sea Diving Technic
NV-1606-0014
Medical Deep Sea Diving Technician
NV-1606-0014
Medical Department Diving Officers
NV-1606-0017
Ship Salvage Diving Officers
NV-1606-0015

DLG
DLG-16 (MOD) Terrier Weapons System
NV-2202-0073
DLG 6-16 Combat System
NV-1715-0764
DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5
NV-2202-0073

DLG-28
Terrier Weapon System DLG-28 (Class System Level Maintenance)
NV-1715-0804

Documentary
Still Documentary Photography C1
NV-1709-0010

Doppler
A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance
NV-1715-0200
AN/APM 341 (V) Doppler Test Set Intermediate Maintenance
NV-1715-0360
AN/APN-122 Doppler Navigation System Maintenance
NV-1715-0483
AN/APN-153(V) Doppler Radar Navigation System Intermediate Maintenance
NV-1715-0507
AN/APN-175 Doppler Radar, Navigation
CG-1715-0027
AN/ASA-47 Doppler/Airmass Navigational Computer System Intermediate Maintenance
NV-1715-0582
S-2D/E AN/APN-122 Doppler Radar Navigation System Maintenance
NV-1715-0422
SH-3A AN/APN-130 Doppler Radar Navigation Maintenance
NV-1715-0237

DOS
IBM System 360 Disk Operating System (DOS) Operations
MC-1402-0018
IBM System 360 (DOS) COBOL Programming
MC-1402-0011

Douglas
Douglas Model D-704 and Sargent-Fletcher Model 31-300 Air Refueling Stores Organizational Maintenance
NV-1704-0046

Drafting
Cartographic Drafting
DD-1713-0002
Construction Drafting
DD-1713-0003

Draftsman
Illustrator Draftsman, Class A
NV-1713-0002

DRAI
Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT), Class C
NV-1715-0344

Drill
Drill Instructor
MC-2204-0001

Drill Instructor
Drill Instructor
MC-2204-0001

Drone
Target Drone, Class C
NV-1704-0044

DRT
Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT), Class C
NV-1715-0344

Drug
Drug Abuse Education Specialist
NV-0799-0004
Drug Abuse Program Officers
NV-0801-0006
Drug and Alcohol Program Advisor
NV-0799-0005
Navy Drug Abuse Counselor
NV-0801-0007

Drum
Drum and Bugle Corps
MC-1205-0002

DS "A"
Data Systems Technician, Class A (DS "A")
NV-1715-0753

DSOT
Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0
NV-1715-0072

DVARS
AN/APN-187 DVARS Intermediate Maintenance
NV-1715-0299

Dynalec
Dynalec Automatic Telephone System Maintenance, Class C1
NV-1404-0007

E-1B
E-1B Aircraft Pilot Training
NV-1606-0053
E-1B Airframe and Hydraulic Systems Organizational Maintenance
NV-1704-0195
E-1B AN/APS-82 Radar System Maintenance
NV-1715-0287
E-1B AN/ASN-28 Central Gyro Reference System Maintenance
NV-1715-0164
E-1B ARC-97 Radio Repeater System Maintenance
NV-1715-0195
E-1B Electrical and Instrument Systems Organizational Maintenance
NV-1714-0013
E-1B Electronic Systems Organizational Maintenance
NV-1715-0498
E-1B Integrated Electrical System Organizational Maintenance
NV-1715-0498
E1B MH-67 Automatic Flight Control System Intermediate Maintenance
NV-1704-0034
E-1B Naval Flight Officer and Aircrewman
NV-1704-0233
E-1B Power Plants and Related Systems Organizational Maintenance

NV-1704-0227

E-2A
E-2A Aircraft Familiarization (Pilots) NV-1704-0054
E-2A AN/ACQ-2 and AN/ACQ-2A Data Terminal Sets Intermediate Maintenance NV-1715-0254
E-2A AN/APS-96 Search Radar Intermediate Maintenance NV-1715-0672
E-2A AN/ARC-80 Radio Set Intermediate Maintenance NV-1715-0190
E-2A AN/ASM-33A In-Flight Performance Monitor Maintenance NV-1715-0471
E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance NV-1715-0527
E-2A AN/ASQ-52 Data Communication System Special Support Equipment Intermediate NV-1715-0382
E-2A AN/ASQ-58 Integrated Electronic Central IFF—KY-308/ASQ and Power Supply—AM-2310/ASQ Intermediate Maintenance NV-1715-0377
E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance NV-1715-0375
E-2A AN/ASQ-58 Integrated Electronic Central UHF–RT-542/ASQ and RT-559/ASQ Power Supply–AM-2310/ASQ Intermediate Maintenance NV-1715-0746
E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) NV-1715-0460
E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance NV-1715-0478
E-2A Aviation Electrician Organizational Maintenance NV-1704-0081
E-2A Computer Detector (CP-413/ASA-27) and Computer Detector Test Console (OA-3731/ASM-76) Intermediate Maintenance NV-1715-0340
E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance NV-1715-0349
E-2A Computer Indicator (AN/ASA-27) Intermediate Maintenance NV-1715-0046
E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance NV-1715-0318
E-2A Digital Data Communications System (AN/ASW-14A) Intermediate Maintenance NV-1715-0347
E-2A Electrical and Instruments Maintenance NV-1704-0093
E-2A Flight Technician Organizational Level Maintenance, No. 4 NV-1704-0036
E-2A Hydraulics/Airframes System Maintenance NV-1704-0155
E-2A Hydraulics/Airframes Systems Organizational Maintenance NV-1704-0155
E-2A Inertial Navigation System AN/ASN-36 Maintenance NV-1715-0709
E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance NV-1715-0323
E-2A Integrated Electronic Central (AN/ASQ-58) Intermediate Maintenance NV-1715-0376
E-2A Multi-Purpose Communications System (AN/ASQ-52) Intermediate Maintenance NV-1715-0379
E-2A Power Plant and Related Systems Maintenance No. 8 NV-1704-0152
E2A Power Plant and Related Systems Organizational Maintenance NV-1704-0151
E-2A Radio Set AN/ARC-80 Intermediate Maintenance NV-1715-0190
E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance NV-1715-0348
E-2A Weapon System Specialist NV-1715-0459
E-2A Weapon System Special, No. 5 NV-1715-0459

E-2B
E-2B Airborne Tactical Data Systems NV-1704-0226
E-2B Airborne Tactical Data Systems (ATDS) Operator Training NV-1715-0777
E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer) NV-1704-0225
E-2B Aircraft Pilot Training NV-1606-0054
E-2B and C-2A Environmental Systems Organizational Maintenance NV-1701-0003
E-2B ATDS Operator (Naval Flight Officer) NV-1704-0225
E-2B/C-2A Aviation Electrician Organizational Maintenance NV-1704-0224
E-2B Detection System Organizational Maintenance NV-1715-0769
E-2B Electronic Systems Organizational Maintenance NV-1715-0776
E-2B Naval Flight Officer NV-1704-0226
E-2B OA-8206/ASA-27A Difference Organizational Maintenance NV-1715-0508
E-2B Weapon System Specialist Organizational Maintenance NV-1715-0757
E-2B Weapon System Trainer (WST) NV-1704-0232

EA3B
A3B, RA3B, EA3B AN/ALQ-35 DECM System Maintenance NV-1715-0525

EA-6A
EA-6A AN/ALQ-76/86 ECM Systems Organizational Maintenance NV-1715-0198

EA-6B
EA-6B Communications, Navigation and Radar System Organizational Maintenance NV-1715-0311
EA-6B Course Attitude Data Transmitter Intermediate Maintenance NV-1715-0192
EA-6B Hydraulics and Flight Control Organizational Maintenance NV-1704-0223
EA-6B J-52-P-408 Power Plants and Related Systems Organizational Maintenance NV-1704-0222
T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B) NV-1715-0192

EA"A"
Engineering Aid, Class A1 (EA"A") NV-1601-0003

EA"C"
EA"C" Planning and Estimating NV-1408-0012

EA"J"
EA"J" NV-1713-0001

EAM
Electrical Accounting Machines (EAM) MC-1402-0019

Ear
Eye, Ear, Nose and Throat Technician, Class C NV-0709-0009

Early Warning
Airborne Early Warning, Class O NV-2202-0036
Airborne Early Warning/Electronics Countermeasures Evaluator, Class O NV-1715-0599

East
Defense Language Institute Courses—East Coast Branch DD-0602-0009

EC-130Q
EC-130Q Electrical Systems and Circuits Organizational Maintenance NV-1714-0001

ECCM
Operations Officer Electronic Counter-Countermeasures (ECCM) MC-1715-0067

Echelon
ONTOS (M50)(Fourth and Fifth Echelon) Maintenance MC-1703-0004

Echo
AN/UQN-4 Echo Sounder Maintenance NV-1715-0425

ECM
EA-6A AN/ALQ-76/86 ECM Systems Organizational Maintenance NV-1715-0198

Economics

Defense Economics and Decision Making Off-Campus Graduate Seminar NV-1511-0006
Defense Economics and Decision Making Self-Administered Seminar (Naval War College) NV-1511-0008
Naval War College Correspondence Course in Defense Economics and Decision Making NV-1511-0005

Editor

Newspaper Editor DD-0504-0003

Education

Drug Abuse Education Specialist NV-0799-0004
Troop Information and Education Enlisted DD-0504-0005
Troop Information and Education Officer DD-0504-0006

E, E & H

E, E & H, Class P NV-1715-0565

Egress

F-4B/J Egress and Environmental Control Systems Maintenance NV-1704-0106
F-4B/J Egress and Environmental Control Systems Organizational Maintenance NV-1704-0106

EKA-3B

EKA-3B AN/ALQ-92 Countermeasures Set Intermediate Maintenance NV-1715-0361
EKA-3B AN/ASN-66B Navigational Computer Set Intermediate Maintenance NV-1715-0505

Electric

Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1 NV-1715-0735
Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance NV-1715-0541
Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance NV-1715-0700
Electric Hydraulic Power Drive for 5"/38 Caliber Dual Purpose Single Mount NV-2202-0075
Electric Motor Rewind, Class C NV-1714-0016
General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance CG-1710-0007

Electrical

6L16 Oxygen Generator Electrical Technician NV-1715-0918
A-4 Integrated Electrical Systems Organizational Maintenance NV-1704-0185
A-4M Electrical Systems Organizational Maintenance NV-1704-0102
A-6A Electrical Systems Intermediate Maintenance NV-1704-0108
A-6A Electrical Systems Maintenance NV-1704-0088
A-6A Electrical Systems Organizational Maintenance NV-1704-0100
A-6/KA-6D Electrical Power Systems Intermediate Maintenance NV-1704-0097
A-7E Electrical and Instrument Systems Organizational Maintenance NV-1704-0080
A-7 Electrical and Instrument Systems Organizational Maintenance NV-1704-0079
Advanced Electrical/Electronics CG-1715-0066
AH-1J Electrical Organizational Maintenance NV-1704-0105
Aviation Support Equipment Technician, Class A (Electrical Specialty) NV-1704-0111
C-121 Electrical Systems NV-1704-0178
C-2A Electrical and Instruments Organizational Maintenance NV-1715-0150
CH-46A Electrical and Instrument Systems NV-1704-0077
CM"C" Automotive Electrical Maintenance NV-1703-0001
Construction Mechanic/Automotive Electrical Maintenance, Class C NV-1703-0001
Diesel Engine and Electrical Operation and Maintenance (Caterpillar Models D-397–399, D-333, D-343, D-353, D-379) CG-1712-0002
E-1B Electrical and Instrument Systems Organizational Maintenance NV-1714-0013
E-1B Integrated Electrical System Organizational Maintenance NV-1715-0498
E-2A Electrical and Instruments Maintenance NV-1704-0093
EC-130Q Electrical Systems and Circuits Organizational Maintenance NV-1714-0001
Electrical Accounting Machines (EAM) MC-1402-0019
Electrical Component Maintenance (UNREP) NV-1715-0025
Electrical Distribution and Control NV-1714-0005
Electrical/Electronics Fundamentals, Class P NV-1715-0352
Electrical Equipment Repairman MC-1714-0002
Electrical Gyrocompass Operation Maintenance Technician, Class C NV-1715-0587
F-14A Electrical Systems Technician (Crew Member) Organizational Maintenance NV-1704-0218
F-4B 20 KVA and AN/AJB-3A Electrical Organizational Maintenance NV-1715-0151
F-4B Aircraft Electrical System Organizational Maintenance NV-1704-0092
F-4 Basic Electrical Systems Organizational Maintenance NV-1715-0142
F-4B Electrical Systems Organizational Maintenance NV-1704-0092
F-4B/J Advanced Electrical Organizational Maintenance NV-1715-0153
F-4J Aircraft Electrical System Organizational Maintenance NV-1704-0094
F-4J Electrical Systems Organizational Maintenance NV-1704-0094
F-8 Electrical, Instruments and Stabilization Systems Organizational Maintenance NV-1715-0183
F/RF-4B Aircraft Electrical Systems Maintenance NV-1704-0104
Gyrocompass Technician—Electrical, Class C NV-1715-0587
Gyrocompass Technician Electrical, Class C1 NV-1715-0587
H-46 Electrical and Instrument Systems Organizational Maintenance NV-1714-0011
H-53 Electrical and Instruments Intermediate Maintenance NV-1704-0236
H-53 Electrical and Instrument Systems Organizational Maintenance NV-1704-0235
KA-3A/KA-3B Electrical and Instruments Organizational Maintenance NV-1714-0014
KC-130F Electrical Systems and Circuits Maintenance NV-1704-0071
KC-130F Electrical Systems Organizational Maintenance NV-1704-0071
OV-10A Electrical Systems Organizational Maintenance NV-1704-0095
Oxygen Generator Electrical Model 6L16 (Enlisted) NV-1715-0560
P-3C Integrated Electrical Systems Organizational Maintenance NV-1704-0089
P-3 Electrical System Maintenance, No. 12 NV-1704-0073
P-3 Electrical System Organizational Maintenance NV-1704-0073
P-3 Electrical Systems Intermediate Maintenance NV-1704-0072
P-3 Integrated Electrical System Organizational Maintenance NV-1704-0101
RA-5C Electrical and Indicating Systems (Intermediate Maintenance)

NV-1704-0099
RA-5C Electrical and Indicating Systems Organizational Maintenance NV-1704-0069
RA-5C Flight Control and Electrical Systems Electronics Intermediate Maintenance NV-1715-0601
S-2D/E Electrical and Instruments Maintenance, No. 6 NV-1704-0086
SH-3A/D Electrical Systems Organizational Maintenance NV-1704-0114
SH-3A Electrical Systems Maintenance NV-1704-0083
UH-1N Electrical Systems Organizational Maintenance NV-1704-0207
UH-2A/B Electrical System Maintenance NV-1704-0091
UH-2C Electrical System Organizational Maintenance NV-1704-0090
UNREP Electrical Component Maintenance United Controls NV-1715-0025

Electrician
Advanced Electrician MC-1715-0044
Aviation Electrician Conversion NV-1704-0070
Aviation Electrician Mate, First Class, by Correspondence CG-1714-0004
Aviation Electrician Mate, Second Class, by Correspondence CG-1714-0003
Aviation Electrician's Mate, First Class, by Correspondence CG-1714-0004
Aviation Electrician's Mate M (Electrician), Class A NV-1704-0070
Aviation Electrician's Mate, Second Class, by Correspondence CG-1714-0003
Basic Electrician MC-1714-0003
Construction Electrician Cable Splicer (Class C) NV-1714-0015
Construction Electrician, Class A (CE"A") NV-1714-0008
Construction Electrician, Class B NV-1714-0010
Construction Electrician, Class J (CE"J") NV-1714-0010
Construction Electrician—Power and Communications Cable Splicing NV-1714-0015
CVA Catapult Electrician, Class C NV-1710-0010
E-2A Aviation Electrician Organizational Maintenance NV-1704-0081
E-2B/C-2A Aviation Electrician Organizational Maintenance NV-1704-0224
Electrician MC-1714-0003
Electrician Mate First Class by Correspondence CG-1714-0011
Electrician Mate Second Class by Correspondence CG-1714-0010
Electrician's Mate First Class by Correspondence CG-1714-0011
Electrician's Mate Second Class by Correspondence CG-1714-0010
Electrician's Mate Third Class by Correspondence CG-1714-0005
IC Electrician, Class B NV-1715-0755
Interior Communications (IC) Electrician, Class B NV-1715-0755
Interior Communications (IC) Electrician, Class C7 NV-1715-0755
Journeyman Electrician MC-1714-0001

Electrician's
Aviation Electrician's Mate, Class A NV-1704-0068
Aviation Electrician's Mate, Class B NV-1715-0134
Aviation Electrician's Mate, Class B (Advanced) NV-1715-0134
Aviation Electrician's Mate, Class B (Intermediate) NV-1715-0135
Aviation Electrician's Mate, First Class, by Correspondence CG-1714-0004
Aviation Electrician's Mate I (Instrument), Class A NV-1704-0068
Aviation Electrician's Mate M (Electrician), Class A NV-1704-0070
Aviation Electrician's Mate, Second Class, by Correspondence CG-1714-0003
Electricians MC-1714-0006
Electrician's Mate Class A CG-1714-0001
Electrician's Mate, Class A1 NV-1714-0012
Electrician's Mate, Class B NV-1715-0104
Electrician's Mate, Class C7 NV-1715-0104
Electrician's Mate Enlisted Maintenance NV-1714-0002
Electrician's Mate First Class by Correspondence CG-1714-0011
Electrician's Mate Maintenance, Class P NV-1714-0003
Electrician's Mate School CG-1714-0001
Electrician's Mates, Class A NV-1714-0012
Electrician's Mates, Class A, Part II Power and Lighting Equipment NV-1714-0012
Electrician's Mate Second Class by Correspondence CG-1714-0010
Electrician's Mate Third Class by Correspondence CG-1714-0005
IC Electricians, Class A NV-1715-0729
Interior Communications Electricians, Class A (A-1) NV-1715-0729

Electricity
Basic Electricity and Electronics, Class AP (Modules 0-25) NV-1714-0009
Basic Electricity and Electronics, Class P NV-1714-0009
Basic Electricity and Electronics for Torpedoman's Mate NV-1715-0532
Basic Electricity Phase of Class A Electronics Technician School NV-1714-0009
Electricity, Electronics and Hydraulics, Class P NV-1715-0565
Submarine Radioman Electricity and Electronics NV-1715-0316

Electrocardiography
Electrocardiography and Basal Metabolism Technic NV-0709-0010
Electrocardiography and Basal Metabolism Technician, Class C NV-0709-0010
Electrocardiography Technician, Class C NV-0709-0010
Electrocardiography Technique NV-0709-0010

Electroencephalography
Electroencephalography Technic NV-0709-0011
Electroencephalography Technician, Class C NV-0709-0011

Electrolytic
Electrolytic Oxygen Generator 7L16 NV-1601-0002
Electrolytic Oxygen Generator Operators NV-1601-0008

Electronic
585/594 FBM Electronic Surveillance Measures (ESM) Technician NV-1715-0882
A-6 Electronic Module Test Console Intermediate Maintenance NV-1715-0451
Airborne Electronic Warfare, Class O NV-1715-0002
Air Control Electronic Operator MC-2204-0031
AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0144
AN/SQS-26 AXR Electronic Maintenance NV-1715-0300
Aviation Squadron Electronic Warfare (EW) Officer (EWO), Class A2 NV-1715-0831
C-121 Electronic Systems NV-1704-0179
DD-063 Class Electronic Warfare Suite NV-1715-0817
E-1B Electronic Systems Organizational Maintenance NV-1715-0498
E-2A AN/ASQ-58 Integrated Electronic Central IFF—KY-308/ASQ and Power Supply—AM-2310/ASQ Intermediate Maintenance NV-1715-0377

E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance NV-1715-0375
E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance NV-1715-0746
E-2A Integrated Electronic Central (AN/ASQ-58) Intermediate Maintenance NV-1715-0376
E-2B Electronic Systems Organizational Maintenance NV-1715-0776
Electronic Fundamentals MC-1715-0004
Electronic Hovering and Depth Control Combined Maintenance NV-1715-0934
Electronic Hovering and Missile Compensation NV-1715-0934
Electronics Technician, Class A—A-2 (Electronic Circuit Applications) NV-1715-0723
Electronic Surveillance Maintenance (ESM) AN/WLR-8(V)2 Combined Maintenance NV-1715-0469
Electronic Surveillance Maintenance (ESM) AN/WLR-6 Basic Operator NV-1715-0500
Electronic Surveillance Maintenance (ESM) AN/WLR-6 Combined Maintenance NV-1715-0501
Electronic Surveillance Maintenance (ESM) AN/WYQ-1, AN-BRQ-1 Combined Maintenance NV-1715-0494
Electronic Surveillance Measures (ESM) Technician SSN 637 Class, Class C-1 NV-1715-0883
Electronic Surveillance Measures (ESM) Technician SSN 688 Class, Class C1 NV-1715-0889
Electronic Technician First Class by Correspondence CG-1715-0038
Electronic Technician Second Class by Correspondence CG-1715-0037
Electronic Teletype Repair MC-1715-0064
Electronic Test Equipment Basic Operator, Class F1 NV-1715-0896
Electronic Test Equipment Operation NV-1715-0896
Electronic Test Equipment Operation/Operational Use NV-1715-0005
Electronic Warfare Electronic Support Measures System Maintenance, Class A NV-1715-0780
Electronic Warfare Technician, Class A (A-2), Electronic Support Measures System Maintenance NV-1715-0780
Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance NV-1715-0296
F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician NV-1704-0217
F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance NV-1715-0371
IOIC Electronic Data Processing Maintenance NV-1715-0581
Junior Officer Electronic Indoctrination by Correspondence CG-1715-0062
Miniature Electronic Repair Program, Class F-1 NV-1715-0815
Miniature/Microminiature Electronic Repair (2M) NV-1715-0815
Operations Officer Electronic Counter-Countermeasures (ECCM) MC-1715-0067
QH-50D Weapons System Electronic Intermediate Maintenance NV-1715-0633
RA-5C AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0479
RA-5C Electronic Reconnaissance Line Maintenance NV-1715-0246
RA-5C Electronic Reconnaissance Organizational Maintenance NV-1715-0224
Solid State Theory for Electronic Equipment NV-1715-0103
Technician Electronic Counter-Countermeasures MC-1715-0001

Electronics
Air Control/Antiaircraft Warfare Electronics Operator MC-1704-0002
Air Control/Antiair Warfare Electronics Operator MC-1704-0002
Air Control Electronics Operator, Automated System MC-1704-0001
Air Traffic Control Electronics Maintenance Officers, Class O NV-1715-0670
AN/ASQ-17B Integrated Electronics Central Intermediate Maintenance NV-1715-0515
AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance NV-1715-0540
AN/SRC-20, AN/SRC-21 Radio Sets Maintenance (Electronics Technician, Class 1) NV-1715-0088
Automated Aids-to-Navigation Electronics Maintenance CG-1715-0041
Aviation Electronics Fundamentals, Class A NV-1715-0380
Aviation Electronics Intelligence, Class O/C NV-1715-0504
Aviation Electronics Officers, Class O NV-1715-0522
Aviation Electronics Technician, First Class, by Correspondence CG-1715-0032
Aviation Electronics Technician, Second Class, by Correspondence CG-1715-0031
Basic Electricity and Electronics for Torpedoman's Mate NV-1715-0532
Basic Electronics CG-1715-0043
MC-1715-0004
Basic Electronics (MA-40) NV-1715-0001
Basic Electronics Orientation NV-1715-0480
Electricity, Electronics and Hydraulics, Class P NV-1715-0565
Electronics Fundamentals CG-1715-0043
Electronics Maintenance Course Interrogator Set AN/TPX-42A(V) 5, Class C NV-1715-0566
Electronics Officers Administrative NV-1715-0721
Electronics Officers (Maintenance) NV-1715-0766
Electronics Specialized Training NV-1715-0169
Electronics Technical Officer, Class O NV-1715-0345
Electronics Technician, AN/SRC-20, AM/SRC-21 Radio Set Maintenance NV-1715-0088
Electronics Technician, AN/URC-9, AN/SRC-20,AN/SRC-21 Radio Sets with AN/ SRA-33 Antenna Coupler Maintenance NV-1715-0088
Electronics Technician First Class by Correspondence CG-1715-0038
Electronics Technician Second Class by Correspondence CG-1715-0037
Fundamentals of Electronics by Correspondence CG-1715-0061
Ground Controlled Approach Electronics Maintenance, Radar Set AN/CPN-4A, Class C NV-1715-0079
Ground Controlled Approach Electronics Maintenance (Radar Set AN/FPN-36), Class C NV-1715-0217
Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O NV-1715-0670
Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician) NV-1715-0171
Photographic Electronics Systems, Class C NV-1715-0354
Polaris Electronics, Class A NV-1715-0705
Prospective Electronics Material Officer—Pacific Fleet, Class C2 NV-1715-0816
QH-50C Weapons System Intermediate Electronics Maintenance

NV-1715-0568
RA-5C AN/ALQ-61 Passive Electronics Countermeasures Organizational Maintenance NV-1715-0366
RA-5C AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance NV-1715-0145
RA-5C Flight Control and Electrical Systems Electronics Intermediate Maintenance NV-1715-0601
RA-5C Flight Control System Electronics (Intermediate Maintenance) NV-1715-0732
RA-5C Photographic Electronics Fundamentals NV-1715-0152
RA-5C Photo Systems Electronics NV-1715-0543
Sonar Electronics Intermediate (SEI) NV-1715-0867
Sonar Technician Class A-1 (Basic Electronics) NV-1715-0580
Sonar Technician Class A-2 (Intermediate Electronics) NV-1715-0578
Submarine Radioman Electricity and Electronics NV-1715-0316

Electronics Technician
AIMS Mk XII IFF System Maintenance (Electronics Technician, Class C1) NV-1715-0812
AN/SPN-40 Radio Navigation Set (Electronics Technician, Class C1) NV-1715-0015
AN/SPS-29C Radar Set Maintenance (Electronics Technician, Class C1) NV-1715-0756
AN/SPS-40B Radar Set Maintenance (Electronics Technician, Class C1) NV-1715-0809
AN/SPS-43A/37A Radar Set Maintenance (Electronics Technician, Class C1) NV-1715-0790
AN/SRN-9 Satellite Radio Navigation Set Maintenance (Electronics Technician, Class C1) NV-1715-0099
AN/UCC-1 Series Telegraph Terminal Maintenance (Electronics Technician, Class C1) NV-1715-0009
AN/UPN-12 Loran Receiver Set Maintenance (Electronics Technician, Class C1) NV-1715-0814
AN/UPR-2 Ionospheric Sounder Set Maintenance (Electronics Technician, Class C1) NV-1715-0004
AN/URN-20 TACAN Maintenance (Electronics Technician, Class C1) NV-1715-0193
AN/URT-23 Radio Transmitter With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1) NV-1715-0056
AN/WRC-1 Radio Set Maintenance (Electronics Technician, Class C1) NV-1715-0010
AN/WRT-2 Radio Transmitter Maintenance (Electronics Technician, Class C1) NV-1715-0011
Aviation Electronics Technician (AT) Communications, Class A CG-1405-0001
Aviation Electronics Technician/ Aviation Fire Control Technician, Advanced Class B NV-1715-0137
Aviation Electronics Technician, Class A CG-1715-0001
CG-1715-0012
NV-1715-0289
Aviation Electronics Technician, Class B NV-1715-0137
Aviation Electronics Technician Class C AN/ARC-94 CG-1715-0019
Aviation Electronics Technician N (Navigation), Class A NV-1715-0097
Aviation Electronics Technician R (Radar), Class A NV-1715-0295
Basic Electricity Phase of Class A Electronics Technician School NV-1714-0009
CP-967/UYK Computer Maintenance (Electronics Technician, Class C1) NV-1402-0016
Digital Principles and Techniques (Electronics Technician, Class C1) NV-1402-0027
Electronics Technician A, Communications NV-1715-0851
Electronics Technician AN/SPA-25 Indicator Group Class C Maintenance NV-1715-0510
Electronics Technician, AN/SPA-34 Indicator Group, Class C NV-1715-0310
Electronics Technician AN/SPS-40 Radar Set Maintenance NV-1715-0557
Electronics Technician, AN/SRN-14, Omega Receiver Maintenance, Class C NV-1715-0590
Electronics Technician AN/URN-20 Radio Set Class C Maintenance NV-1715-0193
Electronics Technician, A School CG-1715-0010
Electronics Technician, Class A CG-1715-0010
Electronics Technician, Class A—A-1 (Electronic Fundamentals) NV-1715-0722
Electronics Technician, Class A—A-2 (Electronic Circuit Applications) NV-1715-0723
Electronics Technician, Class A—A-3 (Communications) NV-1715-0724
Electronics Technician, Class A—A-3 (Radar) NV-1715-0725
Electronics Technician, Class A (Communications) NV-1715-0730
Electronics Technician, Class A (Communications, Radar and Sonar Specialties) NV-1715-0727
Electronics Technician, Class A, Phase SEIN (Shipboard Equipment Indoctrination, Communications) NV-1715-0639
Electronics Technician, Class A, Phase SEIR (Shipboard Equipment Indoctrination, Radar) NV-1715-0638
Electronics Technician, Class A (Radar) NV-1715-0731
Electronics Technician, Class B NV-1715-0754
Electronics Technician, Class C1 NV-1715-0745
Electronics Technician, Class C7 NV-1715-0754
Electronics Technician, Class C, AN/FGC-60; AN/FTA-15 Multichannel Voice Frequency Telegraph Terminal Equipment NV-1715-0194
Electronics Technician Class C, AN/FGC-73 Teletypewriter Routing Set and AN/UGR-14 Inktronic Page Printer NV-1715-0019
Electronics Technician, Class C, AN/SPN-38 Loran Receiving Set Maintenance NV-1715-0364
Electronics Technician, Class C, AN/SPS-29 Radar Set NV-1715-0024
Electronics Technician, Class C, AN/SPS-37, 37A Radar Sets and AN/SPA-63 Countermeasures Receiving Group NV-1715-0298
Electronics Technician, Class C, AN/SPS-37/A Radar Set and AN/SPA-63 Countermeasures Receiving Group NV-1715-0298
Electronics Technician Class C, AN/SPS-40A Radar Set Maintenance NV-1715-0006
Electronics Technician, Class C, AN/SPS-8 Radar Maintenance NV-1715-0305
Electronics Technician, Class C, AN/SRN-12 Omega Receiving Set Maintenance NV-1715-0201
Electronics Technician, Class C, AN/SRN-9 Radio Navigation Set NV-1715-0099
Electronics Technician, Class C, AN/SSM-5 Monitor Test Set Maintenance NV-1715-0008
Electronics Technician, Class C, AN/UPN-12 Loran Receiving Set Maintenance, Class F-1 NV-1715-0814
Electronics Technician (Class C) AN/URC-58, AN/VRC-46 Radio Sets Maintenance NV-1715-0095
Electronics Technician, Class C, AN/UXH-2B Facsimile Recording Equipment Maintenance NV-1715-0012
Electronics Technician Class C, AN/VCC-2 Shipboard System NV-1715-0016
Electronics Technician Class C, AN/WRT-2 and AN/WRR-2 NV-1715-0011
Electronics Technician Class C, Data Transmission Group, Transmission

Equipment Maintenance NV-1715-0026

Electronics Technician, Class C, Electronics Material Officer NV-1715-0007

Electronics Technician, Class C, FBM Tender Navigation Maintenance NV-1715-0182

Electronics Technician Class C, High Power Independent Single Sideband Transmitter (AN/FRT-39; AN/URT-19; AN/URA-30) NV-1715-0027

Electronics Technician, Class C, Indicator Group AN/SPA-41 Maintenance NV-1715-0018

Electronics Technician, Class C, Microwave Fundamentals NV-1715-0186

Electronics Technician Class C, R-1524(P)/WRR Countermeasures Receiver Maintenance NV-1715-0028

Electronics Technician, Class C Shipboard Equipment Indoctrination (Communications) NV-1715-0639

Electronics Technician, Class C, Shipboard Equipment Indoctrination (Radar) NV-1715-0638

Electronics Technician, Class C, Solid State Fundamentals NV-1715-0103

Electronics Technician, Class C, SSBN CNC Technician Maintenance NV-1715-0085

Electronics Technician, Class C, SSBN NAVDAC FBM Tender Navigation Maintenance NV-1715-0168

Electronics Technician, Class C, SSBN Navigation Aids, FBM Tender Navigation Maintenance NV-1715-0064

Electronics Technician, Class C, SSBN Navigation Aids Technician Maintenance NV-1715-0063

Electronics Technician, Class C, SSBN Ships Inertial Navigation, FBM Tender Navigation Maintenance NV-1715-0065

Electronics Technician, Class C, SSBN Ships Inertial Navigation System Mk 2 Mod 0-6 Technician NV-1715-0066

Electronics Technician, Class C, SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician NV-1715-0130

Electronics Technician, Class C, TACAN Maintenance NV-1715-0197

Electronics Technician, Class C, Wideband Synthesized Independent Sideband Receiver NV-1715-0523

Electronics Technician Communications Basic, Class A1 NV-1715-0851

Electronics Technician Communications, Class A CG-1715-0011

Electronics Technician Communications Equipment Fundamentals, Class A1 NV-1715-0852

Electronics Technician Communications—Nuclear Field, Class A1 NV-1715-0853

Electronics Technician (ET) Senior Conversion NV-1715-0554

Electronics Technician, Indicator Group AN/SPA-40, Class C NV-1715-0013

Electronics Technician Radar Basic NV-1715-0854

Electronics Technician Radar, Class A1 NV-1715-0854

Electronics Technician Radar Equipment Fundamentals, Class A1 NV-1715-0855

Electronics Technician Radar—Nuclear Field, Class A1 NV-1715-0856

Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance NV-1715-0014

Fleet Satellite Communications Fleet Broadcast Control Subsystem Maintenance (Electronics Technician, Class C1) NV-1715-0874

Ground Controlled Approach Electronics Technician, AN/MPN-5, Class C NV-1715-0080

Ground Controlled Approach Electronics Technician, Radar Set AN/MPN-1B, Class C NV-1715-0078

Radar Repeater Systems Maintenance (Electronics Technician, Class C1) NV-1715-0029

Electronic Warfare

Advanced Naval Flight Officer Training, Airborne Electronic Warfare Phase NV-1715-0569

Airborne Electronic Warfare, Class O NV-1715-0002

Aviation Squadron Electronic Warfare (EW) Officer (EWO), Class A2 NV-1715-0831

Basic Electronic Warfare (EW) Equipment Operator NV-1715-0017

DD-063 Class Electronic Warfare Suite NV-1715-0817

Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22A(V)2 NV-1715-0781

Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22B(V)1 NV-1715-0781

Electronic Warfare Electronic Support Measures System Maintenance, Class A NV-1715-0780

Electronic Warfare for Nonacoustic Operator, P3A/B(D) NV-1715-0020

Electronic Warfare Fundamentals and Preventive Maintenance Technology NV-1715-0779

Electronic Warfare Fundamentals/Technology, Class A1 NV-1715-0779

Electronic Warfare Intelligence Operator NV-1715-0021

Electronic Warfare Officers and Supervisors Course NV-1715-0022

Electronic Warfare Technician, Class A (A-1), Fundamentals NV-1715-0779

Electronic Warfare Technician, Class A (A-1), Fundamentals/Basic Operator NV-1715-0779

Electronic Warfare Technician, Class A (A-2), Electronic Support Measures System Maintenance NV-1715-0780

Electronic Warfare Technician, Class A (A-3), Deception Repeater Systems Maintenance NV-1715-0781

Electronic Warfare Technician, Class A (A-3), Electronic Countermeasures Systems Maintenance NV-1715-0781

Electronic Warfare Technician, Class A (A-4), Tactical Operations NV-1715-0782

Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance NV-1715-0296

F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician NV-1704-0217

Officer Electronic Warfare MC-1715-0002

Officer Electronic Warfare Operations NV-1715-0023

Tactical Electronic Warfare NV-1715-0768

Elevator

Read Only Memory (ROM) Encoder Elevator Control Maintenance, Class C1 NV-1715-0392

ELINT

637 Class ESM ELINT Technician NV-1715-0888

Advanced Airborne ELINT Evaluator NV-1715-0215

ELINT Evaluation Operator/Officer NV-1715-0003

ESM ELINT Technician SSN 637 Class, Class C-1 NV-1715-0888

Embarkation

Amphibious Transport/Cargo Ship Embarkation NV-0419-0005

Embarkation for Amphibious Operations NV-0419-0004

Enlisted Basic Amphibious Embarkation NV-0419-0003

Enlisted Embarkation(Basic) NV-0419-0003

Officers Embarkation (Basic) NV-0419-0001

Staff Embarkation NV-0419-0002

Emergency

Emergency Medical Technician CG-0709-0002

General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance CG-1710-0007

Encoder
A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance NV-1715-0109
A-6 Right Hand Unit Alignment Test Set, and Encoder Tape Dial Test Set Intermediate Maintenance NV-1715-0335
E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance NV-1715-0323
Read Only Memory (ROM) Encoder Elevator Control Maintenance, Class C1 NV-1715-0392

Enforcement
Maritime Law Enforcement CG-1728-0003

Engine
American Locomotive (ALCO 251C) Diesel Engine, Class C1 NV-1712-0010
Aviation Support Equipment GTCP-100 Engine Intermediate Maintenance NV-1704-0109
CH-53 T-64-GE-413 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0032
Detroit Diesel V71 Series Engine Maintenance, Class C1 NV-1712-0019
Diesel Engine Technician, Class C1 NV-1712-0020
Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine NV-1712-0010
Engineman Fairbanks-Morse 38D 8 1/8 DR Diesel Engine NV-1712-0014
Enginemen, Class C, General Motors 12-567E Diesel Engine NV-1712-0006
Enginemen, Class C, General Motors 16-278A Diesel Engine NV-1712-0005
Enginemen, Class C, General Motors 8-268A Diesel Engine NV-1712-0007
Enginemen, Diesel Engine, Class C NV-1712-0017
F-8 J57-P-16/20 Intermediate Maintenance/Complete Engine Repair NV-1704-0163
Fairbanks Morse 38F5 1/4 Diesel Engine NV-1712-0003
FM38D8 1/8 DR Diesel Engine, Class C1 NV-1712-0014
GM-12-567E/645E Diesel Engine, Class C1 NV-1712-0006
GM-16-278A Diesel Engine, Class C1 NV-1712-0005
GM 268A Diesel Engine, Class C1 NV-1712-0007
H-53, T-64-GE-6/6A Intermediate Maintenance/Complete Engine Repair NV-1704-0049
J52-P408 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0024
J52-P6A/8A Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0119
J60-P-3A/6 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0037
J79-GE-8/10 Engine Intermediate Maintenance NV-1704-0055
J85-GE-4 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0026
KC-130F T-56-A-16 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0014
KC-130F T-56-A-7 Turboprop Engine and Related Systems Maintenance NV-1704-0125
KC-130F T-56-A-7 Turboprop Engine and Related Systems Organizational Maintenance NV-1704-0125
OV-10A T76-G-10/12 Engine Intermediate/Complete Engine Repair Maintenance NV-1704-0137
P-3 T56-A-10/14 Engine and Related Systems Organizational Maintenance NV-1704-0019
P-3 T56-A-10W Engine and Related Systems Maintenance, No. 56 NV-1704-0017
P-3 T56-A-14 Engine and Related Systems Maintenance NV-1704-0019
Pratt and Whitney FT4A Gas Turbine Engine Operation and Maintenance CG-1710-0006
SSN/SSBN Diesel Engine (Fairbanks-Morse) Maintenance NV-1712-0002
T-53-L-13 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0150
T56-A-8/8A Engine and A6441FN-248 Propeller NV-1704-0029
T56-A-8/8A Engine and Aeroproducts A6441FN-248 Propeller Intermediate Maintenance NV-1704-0029
T58-GE-10 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0027
T58-GE-8B Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0021
T58-GE-8B Engine Maintenance Class C CG-1704-0004
T58-GE-8F Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0020
TF30-P-6 Intermediate Maintenance/Complete Engine Repair NV-1704-0033
TF30-P-8/408 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0016
TF30-P-8 Intermediate Maintenance/Complete Engine Repair NV-1704-0016
TF41-A-2 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0123
UH-1E T53-L-11 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0025
UH-1E T53-L-11 Engine Organizational Maintenance NV-1704-0018
Waukesha Diesel Engine NV-1712-0001

Engineer
Assault Boat Engineer NV-1712-0009 NV-1712-0016
Basic Engineer Equipment Mechanic MC-1710-0001
Basic Engineer Equipment Operator MC-1710-0002
Civil Engineer Corps Officer Basic—Contract Administration Specialty NV-1408-0013
Civil Engineer Corps Officer Basic—Naval Construction Battalion Operations Specialty NV-1408-0015
Civil Engineer Corps Officer Basic—Public Works Management Specialty NV-1408-0014
Combat Engineer (Advanced) MC-1710-0019
Combat Engineer Basic MC-1710-0020
Combat Engineer Basic Specialist MC-1710-0020
Combat Engineer Officer MC-1601-0004
Engineer Equipment Chief MC-1710-0016
Engineer Equipment Foreman MC-1710-0026
Engineer Equipment Mechanic MC-1710-0001
Engineer Equipment Mechanic (Basic) MC-1710-0001
Engineer Equipment Mechanic Foreman MC-1710-0024
Engineer Equipment Mechanics MC-1710-0001
Engineer Equipment Officers MC-1601-0001
Engineer Equipment Operators MC-1710-0002
Engineer Officer NV-1712-0008
Engineer Officer (Amphibious Ship) NV-1710-0059
Engineer Officer's Orientation MC-1601-0002
HC-130 Flight Engineer by Correspondence CG-1704-0009
Journeyman Engineer Equipment Mechanic MC-1710-0025
P-3 Flight Engineer System, No. 6 NV-1704-0048
Prospective Engineer Officers NV-1717-0006

Engineering
1200 PSI Prospective Engineering Officer NV-1710-0022
Basic Propulsion Engineering, Class A NV-1715-0714
Engineering Aid, Class A1 (EA"A") NV-1601-0003
Engineering Aid, Class C, Planning and Estimating NV-1408-0012
Engineering Aids, Class B

NV-1713-0001

Engineering Control and Surveillance System Maintenance, Class C1 NV-1601-0014

Engineering Control and Surveillance System Operator, Class C1 NV-1601-0013

Engineering Officer NV-1712-0008

Engineering Watch Officer NV-1710-0012

Introduction to Ocean Engineering NV-1304-0001

Management Engineering NV-1406-0012

Methods Engineering NV-1408-0018

Prospective Engineering Officer Orientation NV-1710-0013

System Engineering MC-1402-0002

Engineers

P-3 Flight Engineers Operational Maintenance, No. 5 NV-1704-0067

Engineman

Basic Engineman, Class C1 NV-1712-0015

Depot Level Boat Repairman (Engineman) NV-1712-0013

Engineman Basic NV-1703-0005

Engineman, Class A CG-1712-0001

Engineman, Class A1 NV-1712-0011

Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine NV-1712-0010

Engineman Class C, Controllable Pitch Propeller NV-1704-0174

Engineman Fairbanks-Morse 38D 8 1/8 DR Diesel Engine NV-1712-0014

Ground Controlled Approach Engineman, Class C, AN/MPN-5 NV-1715-0081

Ground Controlled Approach Maintenance (Engineman), Class C NV-1715-0081

Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C NV-1715-0081

Mine Warfare Engineman Basic NV-1703-0005

Mine Warfare Packard Diesel Engineman (Class C) NV-1712-0012

Mine Warfare Waukesha Diesel Engineman, Class C NV-1712-0004

Enginemen

Enginemen Class C Basic Enginemen NV-1712-0015

Enginemen, Class C, LST 1179 Class Controllable Pitch Propeller and Propulsion Control System NV-1710-0023

Enginemen, Diesel Engine, Class C NV-1712-0017

Enginemen, Gas Turbine Engines, Class C NV-1703-0002

Engines

General Motors Engines (16-278A) NV-1703-0004

Outboard Engines Operation and Maintenance. CG-1731-0001

Enlisted

Basic Enlisted Submarine NV-2202-0029

Enlisted Submarine Indoctrination NV-2202-0092

Entertainment

Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat) DD-0504-0010

Environment

Air-Ocean Environment Course, Class C NV-1304-0002

Marine Environment and Systems Officer, Class C CG-1304-0010

Marine Environment and Systems Petty Officer (Class C) CG-1304-0011

Environmental

A-6A Environmental, Escape and Survival Systems Organizational Maintenance NV-1704-0085

C-2A Environmental Systems Organizational Maintenance NV-1730-0005

E-2A Environmental Systems Organizational Maintenance NV-1701-0003

E-2B and C-2A Environmental Systems Organizational Maintenance NV-1701-0003

Environmental Indoctrination NV-2202-0068

Environmental Sanitation Technic NV-0707-0001

F-14A Environmental and Escape Systems Technician (Crew Member) Organizational Maintenance NV-1704-0210

F-14A Environmental/Escape System Specialist (Crew Leader) Organizational Maintenance NV-1704-0209

F-4B/J Egress and Environmental Control Systems Maintenance NV-1704-0106

F-4B/J Egress and Environmental Control Systems Organizational Maintenance NV-1704-0106

Marine Environmental Protection CG-1304-0012

RA-5C Survival and Environmental Systems NV-1704-0040

RA-5C Survival and Environmental Systems Organizational Maintenance NV-1704-0040

EO"A"

EO"A" NV-1710-0017

EO"B"

Equipment Operator, Class B (EO"B") NV-1710-0018

EO"C"

EO"C" Asphalt NV-1710-0062

EO"C" Blasting and Quarry Operations NV-1710-0064

EO"C" Crushing and Screening Operations NV-1710-0043

EO"C" Gradework NV-1710-0037

EO"C" Water Well Drilling and Development NV-1601-0004

EOD

EOD Diver Candidates NV-1606-0010

Surface Explosive Ordnance Disposal (EOD) Advanced Refresher NV-0802-0003

EO"J"

Equipment Operator, Class J (EO"J") NV-1710-0018

Equal

Defense Equal Opportunity Management Institute DD-1512-0001

Equipment

AIMS Mk XII System Differences Equipment Maintenance, Class C-1 NV-1715-0813

Auxiliary Equipment Package NV-1730-0002

Aviation Support Equipment Technician, Class A (Electrical Specialty) NV-1704-0111

Aviation Support Equipment Technician, Class A (Hydraulic Specialty) NV-1704-0112

Aviation Support Equipment Technician, Class A (Mechanical Speciality) NV-1704-0113

Aviation Support Equipment Technician Hydraulics and Structures, Class A NV-1704-0138

Aviation Support Equipment Technician Mechanical, Class A NV-1704-0145

Aviation Support Equipment Weapons Loaders Hydraulic Systems Intermediate Level Maintenance NV-1704-0110

Basic Electronic Warfare (EW) Equipment Operator NV-1715-0017

Basic Engineer Equipment Mechanic MC-1710-0001

Basic Engineer Equipment Operator MC-1710-0002

Builder—Tool and Equipment Maintenance (BU "C") NV-1002-0001

Cryptographic Equipment Maintenance Preparatory MC-1715-0065

Data Systems Technician—Data Conversion Group Equipment Maintenance, Class C NV-1715-0083

Data Systems Technician—Peripheral Equipment Maintenance, Class C NV-1715-0047

Electrical Equipment Repairman MC-1714-0002

Electronics Technician, Class A, Phase

SEIN (Shipboard Equipment Indoctrination, Communications) NV-1715-0639

Electronics Technician, Class A, Phase SEIR (Shipboard Equipment Indoctrination, Radar) NV-1715-0638

Electronics Technician, Class C Shipboard Equipment Indoctrination (Communications) NV-1715-0639

Electronics Technician, Class C, Shipboard Equipment Indoctrination (Radar) NV-1715-0638

Electronics Technician Communications Equipment Fundamentals, Class A1 NV-1715-0852

Electronics Technician Radar Equipment Fundamentals, Class A1 NV-1715-0855

Engineer Equipment Chief MC-1710-0016

Engineer Equipment Foreman MC-1710-0026

Engineer Equipment Mechanic MC-1710-0001

Engineer Equipment Mechanic (Basic) MC-1710-0001

Engineer Equipment Mechanic Foreman MC-1710-0024

Engineer Equipment Mechanics MC-1710-0001

Engineer Equipment Officers MC-1601-0001

Engineer Equipment Operators MC-1710-0002

Equipment Operator, Class B (EO"B") NV-1710-0018

Equipment Operator, Class J (EO"J") NV-1710-0018

Equipment Operators/Asphalt Paving and Plant Operation, Class C NV-1710-0062

Equipment Operators/Blasting and Quarry Operations, Class C NV-1710-0064

Equipment Operators, Class A NV-1710-0017

Equipment Operators/Crushing and Screening Plant Operations, Class C NV-1710-0043

Equipment Operators Gradework, Class C NV-1710-0037

Hydraulic Systems and Equipment Operation and Maintenance CG-1704-0020

Journeyman Engineer Equipment Mechanic MC-1710-0025

Marine Air Traffic Control Unit Auxiliary Equipment Maintenance, Class C NV-1715-0669

Meteorological Equipment Maintenance, Class C NV-1721-0009

Microwave Equipment Operator (MEOC) MC-1715-0024

Ordnance Handling Equipment Intermediate Maintenance NV-1710-0026

Oxygen Equipment (Class C) NV-1601-0007

Photographic Equipment Maintenance NV-1715-0160

Photographic Equipment Repair, Class C NV-1715-0160

Polaris Target Card Computer System Peripheral Equipment, Class C1 NV-1715-0897

Reproduction Equipment Repair DD-1706-0002

Sound Equipment Repair MC-1715-0014 MC-1715-0042

Terminal Equipment Repair MC-1715-0015

Terminal Equipment Theory MC-1715-0007

Weapons Location Equipment Repair MC-1715-0050

Equipmentman

Advanced Aircrew Survival Equipmentman NV-1704-0208

Aircrew Survival Equipmentman, Class A NV-1704-0234

Aircrew Survival Equipmentman, Class A1 NV-1704-0234

Aircrew Survival Equipmentman, Class C7 NV-1704-0208

Aircrew Survival Equipmentman School, Class B NV-1704-0208

Basic Aircrew Survival Equipmentman NV-1704-0234

ES-55A

RF-4B Photographic Film Correlator-Processor Set ES-55A Intermediate Maintenance NV-1715-0751

Escape

A-6A Environmental, Escape and Survival Systems Organizational Maintenance NV-1704-0085

Evasion, Escape and Survival Training MC-0802-0002

F-14A Environmental and Escape Systems Technician (Crew Member) Organizational Maintenance NV-1704-0210

Survival, Evasion, Resistance to Interrogation and Escape (SERE) MC-0802-0002

ESM

585/594 FBM Electronic Surveillance Measures (ESM) Technician NV-1715-0882

637 Class ESM ELINT Technician NV-1715-0888

Electronic Surveillance Maintenace (ESM) AN/WLR-8(V)2 Combined Maintenance NV-1715-0469

Electronic Surveillance Maintenance (ESM) AN/WLR-6 Basic Operator NV-1715-0500

Electronic Surveillance Maintenance (ESM) AN/WLR-6 Combined Maintenance NV-1715-0501

Electronic Surveillance Maintenance (ESM) AN/WYQ-1, AN-BRQ-1 Combined Maintenance NV-1715-0494

Electronic Surveillance Measures (ESM) Technician SSN 637 Class, Class C-1 NV-1715-0883

Electronic Surveillance Measures (ESM) Technician SSN 688 Class, Class C1 NV-1715-0889

ESM ELINT Technician SSN 637 Class, Class C-1 NV-1715-0888

Estimating

EA"C" Planning and Estimating NV-1408-0012

Engineering Aid, Class C, Planning and Estimating NV-1408-0012

Planning and Estimating Construction Group Ratings, Class C NV-1408-0012

ET

Electronics Technician (ET) Senior Conversion NV-1715-0554

Evaluation

ELINT Evaluation Operator/Officer NV-1715-0003

Evaluator

Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C NV-1402-0032

Naval Tactical Data Systems (NTDS) Evaluator/Supervisor NV-1402-0006

Evasion

Evasion, Escape and Survival Training MC-0802-0002

Survival, Evasion, Resistance to Interrogation and Escape (SERE) MC-0802-0002

EW

Aviation Squadron Electronic Warfare (EW) Officer (EWO), Class A2 NV-1715-0831

Basic Electronic Warfare (EW) Equipment Operator NV-1715-0017

EWO

Aviation Squadron Electronic Warfare (EW) Officer (EWO), Class A2 NV-1715-0831

Exchange

Navy Exchange Management NV-1408-0023

Explosive

Explosive Ordnance Disposal Navy Basic NV-2202-0020

Explosive Ordnance Disposal—Reserve Officer Training NV-2202-0019

Surface Explosive Ordnance Disposal Basic NV-2202-0017

Surface Explosive Ordnance Disposal (EOD) Advanced Refresher NV-0802-0003

UDT-SEAL Explosive Ordnance Disposal Indoctrination NV-2202-0018

Extended

Defense Language Institute Extended or Basic-Intermediate Courses DD-0602-0005

Eye

Eye, Ear, Nose and Throat Technician,

Class C NV-0709-0009

F11A
Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor NV-1606-0041

F-14
F-14 Armament Systems Maintenance Technician (Crew Member) Organizational Maintenance NV-1704-0221
F-14 Weapons System Technician Organizational Maintenance NV-1704-0214

F-14A
F-14A Airframe and Hydraulic Systems Specialist (Crew Leader) Organizational Maintenance NV-1704-0215
F-14A Airframe and Hydraulic Systems Technician (Crew Member) Organizational Maintenance NV-1704-0216
F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician NV-1704-0217
F-14A Electrical Systems Technician (Crew Member) Organizational Maintenance NV-1704-0218
F-14A Environmental and Escape Systems Technician (Crew Member) Organizational Maintenance NV-1704-0210
F-14A Environmental/Escape System Specialist (Crew Leader) Organizational Maintenance NV-1704-0209
F-14A Organizational Maintenance Supervisor's Familiarization NV-1704-0211
F-14A Power Plant and Related System Organizational Maintenance Technician (Crew Member) NV-1704-0212

F-4
F-4 Basic Electrical Systems Organizational Maintenance NV-1715-0142

F-4B
F-4B 20 KVA and AN/AJB-3A Electrical Organizational Maintenance NV-1715-0151
F-4B Airborne Missile Control System AERO 1-A Organizational Maintenance NV-1715-0362
F-4B Aircraft Electrical System Organizational Maintenance NV-1704-0092
F4B AN/AJB-3A Loft Bomb Release Computer Set NV-1715-0050
F-4B AN/APA-157 Radar Set Group Intermediate Maintenance NV-1715-0257
F-4B AN/APQ-72 Radar Set Intermediate Maintenance NV-1715-0430
F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance NV-1715-0394
F-4B Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1704-0076
F-4B Communication Navigation Identification (CWI) Organizational Maintenance NV-1715-0255
F-4B Electrical Systems Organizational Maintenance NV-1704-0092
F-4B Shoehorn Organizational Maintenance NV-1715-0457

F-4B/J
F-4B/J Advanced Electrical Organizational Maintenance NV-1715-0153
F-4B/J Air Data Computer Set Intermediate Maintenance NV-1715-0552
F-4B/J Airframe and Hydraulic Systems Maintenance NV-1704-0056
F-4B/J Airframe and Hydraulic Systems Organizational Maintenance NV-1704-0056
F-4B/J Armament, Missile and Weapons Control System Maintenance NV-1715-0632
F-4B/J Armament, Missile and Weapons Control System Organizational Maintenance NV-1715-0632
F-4B/J Egress and Environmental Control Systems Maintenance NV-1704-0106
F-4B/J Egress and Environmental Control Systems Organizational Maintenance NV-1704-0106
F-4B/J KY-532A/ASQ IFF Transponder Intermediate Maintenance NV-1715-0309
F-4B/J Maintenance Supervisor Familiarization NV-1704-0126
F-4B/J Power Generating System Intermediate Maintenance NV-1704-0189
F-4B/J–RF-4B AN/ALQ-88 Countermeasures Set Intermediate Maintenance NV-1715-0393

F-4J
F-4J Aircraft Electrical System Organizational Maintenance NV-1704-0094
F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance NV-1715-0549
F-4J AN/ARN-86 TACAN Intermediate Maintenance NV-1715-0409
F-4J AN/AWG-10 and Electronic Counter Countermeasure Circuitry Intermediate Maintenance NV-1715-0371
F-4J AN/AWG-10 Antenna Control and Missile Control Intermediate Maintenance NV-1715-0611
F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance NV-1715-0706
F-4J AN/AWG-10 Missile Control System (Enlisted) Familiarization NV-1704-0231
F-4J AN/AWG-10 Receiver Intermediate Maintenance NV-1715-0350
F-4J Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1704-0074
F-4J Communication Navigation Identification (CNI) Organizational Maintenance NV-1715-0612
F-4J Data Link System Intermediate Maintenance NV-1715-0499
F-4J Electrical Systems Organizational Maintenance NV-1704-0094
F-4J RT-793/ASQ UHF Transceiver Intermediate Maintenance NV-1715-0701
F-4J Shoehorn Organizational Maintenance NV-1715-0395
F-4J Weapon System Specialist Organizational Maintenance NV-1715-0308

F-8
F-8 Airframes/Hydraulic Systems Organizational Maintenance NV-1704-0120
F-8 AN/APQ-124 Radar Intermediate Maintenance NV-1715-0428
F8 AN/APQ-83A Radar Intermediate Maintenance NV-1715-0206
F-8 AN/APQ-83B Radar Intermediate Maintenance NV-1715-0214
F-8 AN/APQ-94 Radar Intermediate Maintenance NV-1715-0365
F-8 AN/APR-30(V) Radar Set Intermediate Maintenance NV-1715-0116
F-8 AN/ARN-52 TACAN Intermediate Maintenance NV-1715-0204
F-8 Armament System Organizational Maintenance NV-1715-0181
F-8 Automatic Flight Control System Intermediate Maintenance NV-1715-0737
F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0688
F-8 Electrical, Instruments and Stabilization Systems Organizational Maintenance NV-1715-0183
F-8 J57-P-16/20 Intermediate Maintenance NV-1704-0163
F-8 J57-P-16/20 Intermediate Maintenance/Complete Engine Repair NV-1704-0163
F-8 Power Plants and Related Systems NV-1704-0180

Facilitator
Intercultural Relations—Facilitator

Training
NV-1512-0003

Facilities
DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1
NV-1715-0869
DD-963 Facilities Control Quality Monitoring Processing Unit Operators
NV-1715-0869

Facsimile
Electronics Technician, Class C, AN/UXH-2B Facsimile Recording Equipment Maintenance
NV-1715-0012

Fairbanks-Morse
Engineman Fairbanks-Morse 38D 8 1/8 DR Diesel Engine
NV-1712-0014
Fairbanks Morse 38F5 1/4 Diesel Engine
NV-1712-0003
SSN/SSBN Diesel Engine (Fairbanks-Morse) Maintenance
NV-1712-0002

Fallout
Fallout Shelter Analysis
NV-0802-0010

Fathometers
Fathometers
CG-1715-0056

FBM
585/594 FBM Electronic Surveillance Measures (ESM) Technician
NV-1715-0882
Electronics Technician, Class C, FBM Tender Navigation Maintenance
NV-1715-0182
Electronics Technician, Class C, SSBN NAVDAC FBM Tender Navigation Maintenance
NV-1715-0168
Fleet Ballistic Missile (FBM) Navigation Officer
NV-1715-0456

FBM Tender
Electronics Technician, Class C, SSBN Navigation Aids, FBM Tender Navigation Maintenance
NV-1715-0064
Electronics Technician, Class C, SSBN Ships Inertial Navigation, FBM Tender Navigation Maintenance
NV-1715-0065

FCS
Advanced Fire Control System (FCS) Mk 106 Mod 5
NV-1715-0384
Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization
NV-2202-0099
Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis)
NV-1715-0412
Fire Control System (FCS) Technician Mk 80
NV-1715-0211

Field
Cryptologic Technician Technical Field Operations, Type One
NV-1715-0838
Cryptologic Technician Technical Field Operations Type Three
NV-1715-0840
Cryptologic Technician Technical Field Operations, Type Two
NV-1715-0839
Cryptologic Technician T, Field Operations Type One, Class A3, Special Non-Morse
NV-1715-0838
Cryptologic Technician T, Field Operations Type Three, Class A3, AN/FLR-11/15 Operations
NV-1715-0840
Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse
NV-1715-0839
Field Artillery Batteryman
MC-2204-0010
Field Artillery Fire Controlman
MC-2204-0033
Field Artillery Operations Man
MC-2204-0017
Field Medical Service Officer
NV-0709-0015
Field Medical Service Technician
NV-0709-0015
Field Music
MC-1205-0001
Field Radio Operator
MC-1409-0002
Field Wireman (FWMC)
MC-1714-0007

File
Advanced Mark IV File Management System
MC-1402-0027

Fin
Fin Stabilizer System (Sperry and Ledgewood Controls) Maintenance, Class C1
NV-1722-0004

Financial
Disbursing Clerk, Class C (Financial Returns
NV-1408-0001
Disbursing Clerk Financial Returns Class C
NV-1408-0001
Industry Financial Management
DD-1408-0003
Personal Financial Records Clerk
MC-1403-0003

Finnish
Finnish
DD-0602-0002

Fire
3"/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35)
NV-1715-0655
5"/54 Mount Rapid Fire Mk 42 Mod 7 Operation and Maintenance
NV-1715-0668
5"/54 Rapid Fire Mount Fuzesetter, Train and Elevation (Servo Amplifier System)
NV-1715-0667
Fire Fighter Instructor Course
NV-1728-0004
Mk 35 Power Drive Maintenance for 3"/50 Caliber Rapid Fire Gun Mount
NV-1715-0147

Fire Control
Advanced Fire Control System (FCS) Mk 106 Mod 5
NV-1715-0384
Aviation Fire Control Repair
MC-1715-0033
Aviation Fire Control Repair, AN/TPQ-10 (AFC)
MC-1715-0033
Aviation Fire Control Technician B (Bomb Director), Class A
NV-1715-0141
Aviation Fire Control Technician (B) Conversion (Class C)
NV-1715-0139
Aviation Fire Control Technician, Class A
NV-1715-0537
Aviation Fire Control Technician F(Armament Control), Class A
NV-1715-0140
Aviation Fire Control Technician (F) Conversion (Class C)
NV-1715-0138
Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1
NV-1715-0892
Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1
NV-1715-0895
DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5
NV-2202-0073
Fire Control(FT) Technician, Class C
CG-1715-0016
Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization
NV-2202-0099
Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis)
NV-1715-0412
Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer
NV-1715-0353
Fire Control System (FCS) Technician Mk 80
NV-1715-0211
Fire Control System Technician Mk 80 Replacement
NV-1715-0211
Fire Control System Technician Mk 88 Conversion (Mod 0 to Mod 1)
NV-1715-0203
Fire Control System Technician Mk 88 Mod 1 Tender Maintenance
NV-1715-0205
Fire Control Technician Class A, Phase 2SS
NV-1715-0808
Fire Control Technician, Class A (Phases I and II)
NV-1715-0155
Fire Control Technician, Class B
NV-1715-0185
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37
NV-1715-0355
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5
NV-1715-0221
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56
NV-1715-0218
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 68

NV-1715-0219

Fire Control Technician Class C, Gun Fire Control System Mk 56 and Target Designation System Mk 5
NV-1715-0216

Fire Control Technician Class C, Target Designation System Mk 6
NV-1715-0213

Fire Control Technician Class C, Target Designation System (TDS) Mk 5
NV-1715-0212

Fire Control Technician First Class by Correspondence
CG-1715-0036

Fire Control Technician Mk 88 Replacement
NV-1715-0341

Fire Control TEchnician Second Class by Correspondence
CG-1715-0035

Guided Missile Fire Control Repair
MC-1715-0037
MC-1715-0079

Gun Fire Control Radar Mk 25 Mod 3 Maintenance
NV-1715-0127

Gun Fire Control System (GFCS) (Less Radar) Operation and Maintenance
NV-1715-0210

Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar)
NV-1715-0210

Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0728

Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1
NV-1715-0221

Gun Fire Control System (GFCS) Mk 56 Maintenance
NV-1715-0207

Gun Fire Control System (GFCS) Mk 63 Maintenance
NV-2202-0028

Gun Fire Control System (GFCS) Mk68 Maintenance
NV-1715-0220

Gun Fire Control System (GFCS) Mk 68 Mod 4 Maintenance
NV-1715-0208

Gun Fire Control Systems MK-52 and MK-56
CG-1715-0016

Intermediate Aviation Fire Control Technician, Class B
NV-1715-0646

Launcher Technician MK 88 Fire Control Conversion
NV-1715-0623

Light Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0034
MC-1715-0036

Mark 105 Underwater Fire Control System (UWFCS) Mod 28
NV-1715-0675

Medium Antiaircraft Artillery (AAA) Fire Control Repair
MC-1715-0056

Mk 101 Mods 17 Through 20 Fire Control System (FCS) Maintenance, Class C1
NV-1715-0803

Mk 112 Mod 2 Fire Control System (FCS) Maintenance, Class C1
NV-1715-0890

Mk 113 Mod 7 Fire Control System (FCS) Maintenance
NV-1715-0760

Mk 56 Gun Fire Control System (GFCS) Maintenance, Class C1
NV-1715-0218

Mk 84 Fire Control System Technician
NV-1715-0535

Mk 88 Mod 1 Fire Control Technician Conversion (Mk 80 & 84 to Mk 88)
NV-1715-0585

Shore Fire Control Party
NV-2202-0037

Shore Fire Control Party Enlisted
NV-2202-0062

Shore Fire Control Party Enlisted (Modified for U.S. Marine Corps Reserve)
NV-2202-0061

Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0
NV-1715-0072

Tartar Fire Control and Missile Officer
NV-1715-0703

Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0
NV-1715-0681

Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7
NV-1715-0805

Terrier Fire Control and Missile Officer
NV-1715-0328

Terrier Weapons System Missile Fire Control System (MFCS) Mk 73
NV-1715-0442

Terrier Weapons System Missile Fire Control System (MFCS) Mk 76
NV-1715-0443

Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS)
NV-1715-0658

Underwater Fire Control Group Mk 111 Maintenance
NV-1715-0119

Underwater Fire Control System (FCS) Technician (Torpedoes) Mk 113 Mod 7
NV-1715-0760

Underwater Fire Control Systems Technician (Mk 113 Mod 9)
NV-1715-0313

Underwater Fire Control Systems Technician (Target Motion Analysis Subsystem)
NV-1715-0313

Fireman

Fireman by Correspondence
CG-1722-0001

First Term

Advanced First Term Avionics, Class B (AFTA)
NV-1715-0556

First Tour

Aviation Antisubmarine Warfare (AASW) for First Tour Pilots P3A/B/(D)
NV-1715-0270

Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P3C
NV-1606-0028

First Tour Pilot P-3C Communications Operator
NV-1704-0213

Fiscal

Fiscal Accounting Clerk
MC-1402-0026

Fixed

Carrier Fixed Wing Antisubmarine (AASW) Warfare Tactics
NV-2202-0001

Fixed Wing Flight Mechanics
NV-1606-0062

Fleet

Fleet Air Intelligence Officer
NV-2202-0023

Fleet Ballistic Missile (FBM) Navigation Officer
NV-1715-0456

Fleet Data Processing Officers Training
NV-1402-0008

Fleet Officer and Fleet Enlisted Air Intelligence
NV-2202-0022

Fleet Replacement Radar Navigator
NV-1606-0036

Fleet Satellite Communications Fleet Broadcast Control Subsystem Maintenance (Electronics Technician, Class C1)
NV-1715-0874

Fleet Work Study
NV-1406-0012

Flexscop

Cryptologic Technician M, Flexscop Maintenance, Class C3
NV-1715-0828

Cryptologic Technician T, Flexscop Operator
NV-1715-0843

Cryptologic Technician T, Flexscop Programmer, Class C3
NV-1715-0846

Flexscop Operator, Class C3
NV-1715-0843

Flight

Advanced Naval Flight Officer Training, Airborne Electronic Warfare Phase
NV-1715-0569

Advanced Navigation Training (Student Naval Flight Officer)
NV-1606-0031

AN/ASH-20 (V) Flight Recorder-Locator System Intermediate Maintenance
NV-1704-0230

AN/AYN-2, AN/ASN-50 Flight Director and Gyrocompass Systems Class C
CG-1715-0014

Basic Prop Flight Instructor
NV-1606-0018

E1B MH-67 Automatic Flight Control System Intermediate Maintenance
NV-1704-0034

E-1B Naval Flight Officer and Aircrewman
NV-1704-0233

E-2A Flight Technician Organizational Level Maintenance, No. 4
NV-1704-0036

E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer)
NV-1704-0225

E-2B ATDS Operator (Naval Flight Officer)
NV-1704-0225

E-2B Naval Flight Officer

NV-1704-0226
EA-6B Hydraulics and Flight Control Organizational Maintenance NV-1704-0223
F-4J AN/AJB-7 Loft Bomb Computer System and AN/ASN-70 Vertical Flight Reference System Intermediate Maintenance NV-1715-0549
Fixed Wing Flight Mechanics NV-1606-0062
Flight Instructor Indoctrination Group NV-1606-0042
Flight Instructor Training NV-1606-0019
Flight Mechanic HH-52A by Correspondence CG-1704-0010
Flight Preparation, Naval Aviation Cadet and Aviation Officer Candidate NV-1606-0046
Flight Preparation, Officer NV-1606-0047
Flight Systems NV-1606-0047
HC-130 Flight Engineer by Correspondence CG-1704-0009
HH-3F Flight Mechanic by Correspondence CG-1704-0011
Naval Flight Officer P3C Communications Operator NV-1704-0219
Naval Flight Officer Training (Flight, Academic, Flight Support) NV-1606-0044
Navigation Flight Training, Naval Aviator and Naval Flight Officer NV-1606-0045
Navigation Flight Training, Pilot and Naval Aviation Officer (Navigator) NV-1606-0045
P3C Tactical Coordinator Positional Training for Naval Flight Officers NV-1606-0043
P-3 Flight Engineers Operational Maintenance, No. 5 NV-1704-0067
P-3 Flight Engineer System, No. 6 NV-1704-0048
P-3 Hydraulics and Flight Controls System Maintenance, No. 10 NV-1704-0050
Pilots C-121 Simulator and Advanced Flight NV-1606-0034
Pilots C-121 Simulator and Basic Flight NV-1606-0035
Prospective Advanced Navigation Flight Instructor NV-1606-0038
Prospective ASW Flight Instructor (S-2 Type Aircraft) NV-1606-0020
Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft) NV-1606-0020
Prospective Phase I CV (Jet) (TF/AF-9J) Tactical Flight Instructor NV-1606-0037
Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor NV-1606-0041
Prospective Prop Flight Instructor NV-1606-0020
Prospective TA-4J Flight Instructor NV-1606-0021
Prospective TF/TAF-9J Flight Instructor NV-1606-0039
Prospective VA (Prop) Tactical Flight Instructor NV-1606-0040
RA-5C Air Data and Flight Reference Systems NV-1715-0454
RA-5C Air Data and Flight Reference Systems Organizational Maintenance NV-1715-0454
RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director NV-1715-0562
Rotary Wing Flight Mechanics NV-1606-0063
UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance NV-1704-0057
UH34D Airframe, Hydraulics and Flight Controls NV-1704-0064

Flight Control
A-4 Automatic Flight Control System Intermediate Maintenance NV-1704-0015
A-4 Automatic Flight Control System Organizational Maintenance NV-1704-0035
A-6A Automatic Flight Control System Intermediate Maintenance NV-1715-0699
A-6A Automatic Flight Control System Organizational Maintenance NV-1704-0022
A-7A/B/E AN/ASW-26/30 Automatic Flight Control System Organizational Maintenance NV-1715-0807
A-7 AN/ASW-26/30 Automatic Flight Control System Intermediate Maintenance NV-1715-0617
A-7 Automatic Flight Control System Organizational Maintenance NV-1715-0807
Automatic Flight Control System (AN/ASW-15) And Air Data Computer (560T27-1) Organizational Maintenance NV-1715-0741
C-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) Intermediate Maintenance NV-1715-0461
E1B MH-67 Automatic Flight Control System Intermediate Maintenance NV-1704-0034
E-2A Automatic Flight Control System (AN/ASW-15) and Air Data Computer (A/A24G-13) NV-1715-0460
E-2A Automatic Flight Control System and Air Data Computer Semi-Automatic Check-out Equipment Operation and Maintenance NV-1715-0478
F-8 Automatic Flight Control System Intermediate Maintenance NV-1715-0737
F/RF-4B/J Automatic Flight Control Systems Intermediate Maintenance NV-1715-0613
H-53 Automatic Flight Control System Organizational Maintenance NV-1704-0133
OV-10A Flight Control and Hydraulic Systems Organizational Maintenance NV-1704-0103
P-3 Hydraulics, Flight Control Systems and Structures Organizational Maintenance NV-1704-0161
P-3 PB20N Automatic Flight Control System Maintenance, No. 13 NV-1715-0600
RA-5C Flight Control and Electrical Systems Electronics Intermediate Maintenance NV-1715-0601
RA-5C Flight Control Intermediate Maintenance NV-1715-0453
RA-5C Flight Control System Electronics (Intermediate Maintenance) NV-1715-0732
RA-5C Flight Control System Organizational Maintenance NV-1715-0455
RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance NV-1715-0542

Flight Controls
A-6A Hydraulics and Flight Controls Organizational Maintenance NV-1704-0129
H-53 Automatic Flight Controls Systems Intermediate Maintenance NV-1715-0738
HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance NV-1704-0058
P-3 Structures, Hydraulic Power and Flight Controls Organizational Maintenance NV-1704-0206

Food
Advanced Food Service MC-1729-0010
Basic Food Service MC-1729-0009
Food Service MC-1729-0013
Food Service Management MC-1729-0008
Food Service Noncommissioned Officer (NCO) Leadership MC-1729-0005
Food Service Officer MC-1729-0015
Food Services and Disbursing NV-1729-0001
Food Service Staff Noncommissioned Officer (NCO) Leadership MC-1729-0004

Foreman
Construction Foreman MC-1710-0003
Engineer Equipment Foreman MC-1710-0026
Engineer Equipment Mechanic Foreman MC-1710-0024
Metalsmith Foreman MC-1723-0003

Formal
Formal School Instructor (IAC)

MC-1406-0012

FORTRAN
IBM System 360 OS FORTRAN IV Language (Entry-level) MC-1402-0043
IBM System 360 OS FORTRAN Programming MC-1402-0034

Freight
Basic Freight Operation MC-0419-0001
Freight Transportation and Traffic Management NV-0419-0008

French
French DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0004
DD-0602-0006
DD-0602-0009

Frequency
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800
Cryptologic Technician R High Frequency Direction Finder (HFDF) Operator NV-1715-0833
High Frequency Direction Finder Operator, Class C3 NV-1715-0833
High Frequency Direction Finding (HFDF) Communications Technical Control NV-1715-0800

F/RF-4B
F/RF-4B Aircraft Electrical Systems Maintenance NV-1704-0104
F/RF-4B Air Data Computer Set Maintenance NV-1715-0209
F/RF-4B J79-GE-8/8A Cold Section Repair NV-1704-0201
F/RF-4B J79-GE-8/8A Hot Section and Related Systems Intermediate Maintenance NV-1704-0202
F/RF-4B Power Generating System Maintenance NV-1715-0682
F/RF-4B Structures and Hydraulics Maintenance NV-1704-0122

F/RF-4B/J
F/RF-4B/J Aircraft Mechanics Organizational Maintenance NV-1704-0192
F/RF-4B/J Automatic Flight Control Systems Intermediate Maintenance NV-1715-0613
F/RF-4B/J Hydraulic Organizational Maintenance NV-1704-0030
F/RF-4B/J Power Plant and Related Systems Maintenance NV-1704-0182

F/RF-8
F/RF-8 Shoehorn Organizational Maintenance NV-1715-0644

FTB
3306/3309 FTB Conversion Training NV-1715-0887

Fuel
Aviation Fuel Systems, Class C NV-1704-0186
NV-1704-0199
Fuel Gas Welders NV-1710-0052
UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems Maintenance NV-1704-0061
UH-2C Power Plants, Fuel, Transmissions and Related Systems Organizational Maintenance NV-1704-0176

Fuels
Aviation Boatswain's Mate F (Fuels), Class A NV-1728-0005

Fundamental
Fundamental Analysis Techniques (P-3) NV-1715-0275

Fundamentals
Electronics Fundamentals CG-1715-0043
Electronic Warfare Fundamentals and Preventive Maintenance Technology NV-1715-0779
Electronic Warfare Fundamentals/ Technology, Class A1 NV-1715-0779
Electronic Warfare Technician, Class A (A-1), Fundamentals NV-1715-0779
Electronic Warfare Technician, Class A (A-1), Fundamentals/Basic Operator NV-1715-0779
Radar Fundamentals CG-1715-0044

Fuzesetter
5"/54 Rapid Fire Mount Fuzesetter, Train and Elevation (Servo Amplifier System) NV-1715-0667

FWMC
Field Wireman (FWMC) MC-1714-0007

Gas
Carrier Gasoline and Inert Gas Systems, Class C NV-1405-0018
DD963 Basic Circuit Concepts for Gas Turbine Controls, Class C1 NV-1402-0020
Enginemen, Class C, Marine Gas Turbine Basic NV-1710-0066
Enginemen, Gas Turbine Engines, Class C NV-1703-0002
Fuel Gas Welders NV-1710-0052
Gas Turbine by Correspondence CG-1731-0002
General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance CG-1710-0007
LM2500 Gas Turbine Module Maintenance, Class C1 NV-1703-0008
Marine Gas Turbine Basic, Class C1 NV-1710-0066
Pratt and Whitney FT4A Gas Turbine Engine Operation and Maintenance CG-1710-0006
Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1 NV-1703-0009

Gases
Compressed Gases, Class C NV-1601-0010
Compressed Gases, Class C, High Pressure Oxygen-Nitrogen Plant NV-1601-0010
Compressed Gases Cryogenerator Maintenance, Class C NV-1601-0001

Gasoline
Aviation Boatswain's Mate G Gasoline School, Class A NV-1722-0001
Aviation Support Equipment Gasoline Engine Intermediate Maintenance NV-1703-0006
Carrier Gasoline and Inert Gas Systems, Class C NV-1405-0018
Gasoline Handling NV-1722-0001

General
General Motors Engines (16-278A) NV-1703-0004
General Pump Maintenance NV-1710-0070
General Service Indoctrination School CG-2205-0005
Steam Plant Automatic Controls Maintenance (General Regulator) NV-1710-0072

Generating
1200 PSI Steam Generating Plant Operator NV-1710-0075
F/RF-4B Power Generating System Maintenance NV-1715-0682
Steam Generating Plant Inspector NV-1732-0001

Generator
6L16 Oxygen Generator Technician NV-1601-0009
Electrolytic Oxygen Generator 7L16 NV-1601-0002
Electrolytic Oxygen Generator Operators NV-1601-0008
Generator Regulators, Class F-1 NV-1715-0901
Oxygen Generator Electrical Model 6L16 (Enlisted) NV-1715-0560
Oxygen Generator (Mechanical) NV-1601-0005
Oxygen Generator Mechanical Model 6L16 (Enlisted) NV-1601-0006
Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1 NV-1703-0009

Geodesy
Mapping, Charting, and Geodesy Officer DD-1601-0007

Geodetic
Advanced Geodetic Surveying

DD-1601-0003

Geodetic Computing
DD-1601-0006

Geodetic Surveying
DD-1601-0002

German

German
DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0004
DD-0602-0005
DD-0602-0006
DD-0602-0009

GFCS

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37
NV-1715-0355

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5
NV-1715-0221

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56
NV-1715-0218

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 68
NV-1715-0219

Gun Fire Control System (GFCS) (Less Radar) Operation and Maintenance
NV-1715-0210

Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar)
NV-1715-0210

Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0728

Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1
NV-1715-0221

Gun Fire Control System (GFCS) Mk 56 Maintenance
NV-1715-0207

Gun Fire Control System (GFCS) Mk 63 Maintenance
NV-2202-0028

Gun Fire Control System (GFCS) Mk68 Maintenance
NV-1715-0220

Gun Fire Control System (GFCS) Mk 68 Mod 4 Maintenance
NV-1715-0208

Mk 56 Gun Fire Control System (GFCS) Maintenance, Class C1
NV-1715-0218

Gradework

EO"C" Gradework
NV-1710-0037

Equipment Operators Gradework, Class C
NV-1710-0037

Gram

Jezebel Gram Analysis for AW's P3A/B (DIFAR Retrofit)
NV-1715-0704

Greek

Greek
DD-0602-0001
DD-0602-0002
DD-0602-0004

Ground

Ground Controlled Approach Controller, Class C
NV-1715-0123

Ground Controlled Approach Electronics Maintenance, Radar Set AN/CPN-4A, Class C
NV-1715-0079

Ground Controlled Approach Electronics Maintenance (Radar Set AN/FPN-36), Class C
NV-1715-0217

Ground Controlled Approach Electronics Maintenance, Radar Set AN/MPN-5, Class C
NV-1715-0080

Ground Controlled Approach Electronics Technician, AN/MPN-5, Class C
NV-1715-0080

Ground Controlled Approach Electronics Technician, Radar Set AN/MPN-1B, Class C
NV-1715-0078

Ground Controlled Approach Engineman, Class C, AN/MPN-5
NV-1715-0081

Ground Controlled Approach Maintenance (Engineman), Class C
NV-1715-0081

Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C
NV-1715-0081

Ground Controlled Approach Operator, Class C
NV-1715-0122

Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O
NV-1715-0670

Ground Radar Repair
MC-1715-0062

Ground Radar Technician
MC-1715-0051

Ground Radio Repair
MC-1715-0009

Ground Radio Technician
MC-1715-0045

Special Ground Radio Repair
MC-1715-0068

Telemetering Ground Station AN/SKQ-2
NV-1715-0791

Group VIII

Group VIII E-6/E-7 Management
NV-1408-0006

Group VIII E8/E9 Advanced Management
NV-1408-0006

GTCP-100

Aviation Support Equipment GTCP-100 and Enclosures Intermediate Maintenance
NV-1704-0109

Aviation Support Equipment GTCP-100 Engine Intermediate Maintenance
NV-1704-0109

Guard

Marine Security Guard
MC-1728-0001

Guidance

AN/ARW-77 Bullpup Guidance Control System
NV-1715-0627

Guidance System, Mk 3 Mod 0, Operation and Maintenance
NV-1715-0245

Guided Missile

Air Launched Weapons Guided Missile Intermediate Maintenance
NV-1715-0589

AN/DPM-7 Sparrow III Guided Missile Test Equipment Intermediate Maintenance
NV-1715-0628

AN/DSM-32 Sparrow III Guided Missile Test Equipment Intermediate Maintenance
NV-1715-0446

Guided Missile Fire Control Repair
MC-1715-0037
MC-1715-0079

Gunner's Mate Class C Guided Missile Launching System
NV-1715-0620

Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance
NV-1715-0619

Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore)
NV-1715-0702

Talos Guided Missile and Guided Missile Test Set Maintenance
NV-1715-0622

Terrier/Tartar Guided Missile and Guided Missile Test Set Maintenance
NV-1715-0467

Gun

3"/50 Caliber Rapid Fire Gun Mount Maintenance
NV-2202-0085

3"/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35)
NV-1715-0655

5"/54 Rapid Fire Gun and Mount Mk 42 Mods 7 and 8, Class C1
NV-1715-0520

A-7 M61A1 Gun and Associated Systems Intermediate Maintenance
NV-2202-0097

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37
NV-1715-0355

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5
NV-1715-0221

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56
NV-1715-0218

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 68
NV-1715-0219

Fire Control Technician Class C, Gun Fire Control System Mk 56 and Target Designation System Mk 5
NV-1715-0216

Gun Fire Control Radar Mk 25 Mod 3 Maintenance
NV-1715-0127

Gun Fire Control System (GFCS) (Less Radar) Operation and Maintenance
NV-1715-0210

Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar)
NV-1715-0210

Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0728

Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1

NV-1715-0221
Gun Fire Control System (GFCS) Mk 56 Maintenance
NV-1715-0207
Gun Fire Control System (GFCS) Mk68 Maintenance
NV-1715-0220
Gun Fire Control System (GFCS) Mk 68 Mod 4 Maintenance
NV-1715-0208
Gun Fire Control Systems MK-52 and MK-56
CG-1715-0016
Gun Maintenance 5'/54 Caliber Rapid Fire Mk 42
NV-1715-0179
Gun Mount 5"/54 Mk 42 Mod 9 and 10, Class C1
NV-2202-0104
Gun Mount 5"/54 Mk 42 Mods 7 and 8
NV-1715-0520
Mk 35 Power Drive Maintenance for 3'/50 Caliber Rapid Fire Gun Mount
NV-1715-0147
Mk 56 Gun Fire Control System (GFCS) Maintenance, Class C1
NV-1715-0218
Mk 68 Gun Director and AN/SPG-53F Radar Maintenance
NV-1715-0239
Mk 9 and Mk 10 5'/38 Caliber Twin Gun Mount Power Drive Maintenance
NV-1715-0654

Gunboat
Patrol Gunboat/PG/Engineering Systems Operator and Maintenance
NV-1712-0018

Gunfire
Disturbed Line of Sight Gunfire Control System Maintenance
NV-1715-0759
Naval Gunfire Air Spotter
NV-2202-0053
NV-2202-0059
Naval Gunfire Liaison Officer
NV-2202-0058
NV-2202-0060
Naval Gunfire Officer
MC-2204-0039
Naval Gunfire Spotters (Troop Officers)
NV-2202-0064
Naval Gunfire Staff Officer
NV-2202-0067
Naval Gunfire Support Planning
NV-2202-0089
Troop Naval Gunfire Spotter
NV-2202-0057

Gunner
Redeye Gunner/Operator
MC-2204-0012
Redeye Gunner—Platoon Training
MC-2204-0012
Redeye Gunner—Platoon Training (Abbreviated Course)
MC-2204-0011

Gunner's
Basic Gunner's Mate, Class A
CG-1714-0002
Gunner's Mate Advanced
CG-1714-0007
Gunner's Mate Advanced ADT
CG-1714-0007
Gunner's Mate, Class A
CG-1714-0002
Gunner's Mate, Class A1
NV-1715-0652
Gunner's Mate Class A, Phase I (A-1)
NV-1715-0652
Gunner's Mate Class A, Phase II (A-2)
NV-1715-0653
Gunner's Mate, Class B
NV-1715-0802
Gunner's Mate, Class C
CG-1714-0006
Gunner's Mate Class C ASROC Launching Group
NV-1715-0626
Gunner's Mate Class C Guided Missile Launching System
NV-1715-0620
Gunner's Mate Class C Rocket Launcher Mk 108
NV-1715-0618
Gunner's Mate First Class by Correspondence
CG-1714-0012
Gunner's Mate Second Class by Correspondence
CG-1714-0009
Gunner's Mate Specialized Training
NV-2202-0063
Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician)
NV-1715-0171
Talos Gunner's (Missile) Handling
NV-1715-0602
Terrier/Tartar Gunner's Mate
NV-1715-0603

Gunnery
Gunnery Officers (Relative Rate)
NV-1715-0624
Gunnery Officers—Weapons Department Officers
NV-1715-0625

Gyro
Central Gyro Reference System (AN/AJA-2), Class C
NV-1715-0708
E-1B AN/ASN-28 Central Gyro Reference System Maintenance
NV-1715-0164

Gyrocompass
AN/AYN-2, AN/ASN-50 Flight Director and Gyrocompass Systems Class C
CG-1715-0014
Electrical Gyrocompass Operation Maintenance Technician, Class C
NV-1715-0587
Gyrocompass Technician—Electrical, Class C
NV-1715-0587
Gyrocompass Technician Electrical, Class C1
NV-1715-0587
Gyrocompass Technician Mechanical, Class C1
NV-1721-0008
MK 27 Gyrocompass Maintenance, Class C
NV-1715-0762
Sperry Mk XIX Mod III Gyrocompass
NV-1715-0062
Submarine Gyrocompass Mk 19 Mod 3
NV-1715-0062

H-46
H-46 AN/APX-6B and AN/APA-89 Identification System Intermediate Maintenance
NV-1715-0034
H-46 Electrical and Instrument Systems Organizational Maintenance
NV-1714-0011
H-46 Hydraulic System Organizational Maintenance
NV-1704-0194
H-46 Rotors and Related Systems Organizational Maintenance Course
NV-1704-0154
H-46 Stabilization Systems Intermediate Maintenance
NV-1704-0136

H-53
H-53 Automatic Flight Controls Systems Intermediate Maintenance
NV-1715-0738
H-53 Automatic Flight Control System Organizational Maintenance
NV-1704-0133
H-53 Electrical and Instruments Intermediate Maintenance
NV-1704-0236
H-53 Electrical and Instrument Systems Organizational Maintenance
NV-1704-0235
H-53 Helicopter Maintenance
NV-1704-0147
H-53 Hydraulic Systems Organizational Maintenance
NV-1704-0063
H-53 Power Plants and Related Systems Organizational Maintenance
NV-1704-0168
H-53 Rotor and Related Systems Organizational Maintenance
NV-1704-0062
H-53, T-64-GE-6/6A Intermediate Maintenance/Complete Engine Repair
NV-1704-0049

Hagan
Steam Plant Automatic Controls Maintenance (Hagan)
NV-1710-0073

Hazardous
Hazardous Chemicals Training
CG-0802-0006
Transportation and Storage of Hazardous Material
NV-0419-0007

HC-130
HC-130 Avionicsman by Correspondence
CG-1715-0040
HC-130 Flight Engineer by Correspondence
CG-1704-0009

HC-131A
HC-131A Aircraft Maintenance Class C
CG-1704-0006

Heading
A-7A/B Attitude Heading and Reference System Intermediate Maintenance
NV-1721-0006
AN/ASN-50 Attitude Heading Reference System Intermediate Maintenance
NV-1715-0534

Head Up
AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E)
NV-1704-0229

Heat
Heat Treatment of Metals, Class C
NV-1724-0001

Heavy
BU"C" Heavy Construction NV-1710-0034

Helicopter
Aviation Machinist's Mate H (Helicopter), Class A NV-1704-0238
Basic Helicopter, Class C NV-1704-0059
H-53 Helicopter Maintenance NV-1704-0147
Helicopter Aviation Antisubmarine Warfare Air Sonar Operator (AN/AQS-13) NV-2202-0080
Helicopter (HS) Antisubmarine Warfare Operator NV-2202-0080
Senior Officer Helicopter Training NV-1704-0196

Helium
Deep Sea Helium-Oxygen Diving Officers NV-1606-0009

HF
RT 648/698 (AN/ARC-94/102/105/119/120) HF Transceiver Intermediate Maintenance NV-1715-0373
RT-648/ARC-94 and RT-698/ARC-102 HF Transceiver Intermediate Maintenance NV-1715-0369
S-2E AN/ARC-94 HF Receiver-Transmitter System Maintenance NV-1715-0244

HFDF
Communications Technician "O" Branch, HFDF Communications Technical Control NV-1715-0800
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800
Cryptologic Technician R High Frequency Direction Finder (HFDF) Operator NV-1715-0833
High Frequency Direction Finding (HFDF) Communications Technical Control NV-1715-0800

HH-2C
UH-2C, HH-2C and HH-2D Power Plants and Related Systems Organizational Maintenance NV-1704-0141
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Organizational Maintenance NV-1715-0683

HH-2D
HH-2D/SH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1704-0205
UH-2C, HH-2C and HH-2D Power Plants and Related Systems Organizational Maintenance NV-1704-0141
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Organizational Maintenance NV-1715-0683

HH-2D/SH-2D
HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance NV-1704-0058

HH-3F
HH-3F Avionicsman by Correspondence CG-1715-0039
HH-3F Flight Mechanic by Correspondence CG-1704-0011

HH-52A
Flight Mechanic HH-52A by Correspondence CG-1704-0010
HH-52A Airframe and Powertrain, Class C CG-1704-0005

High
Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800
Cryptologic Technician R High Frequency Direction Finder (HFDF) Operator NV-1715-0833
High Frequency Communication Central Operator MC-1715-0083
High Frequency Direction Finder Operator, Class C3 NV-1715-0833
High Frequency Direction Finding (HFDF) Communications Technical Control NV-1715-0800
High Impact Personnel Overseas Duty Training NV-1512-0002
High Intensity Language Training (Vietnamese) MC-0602-0001
High Pressure Pipe Welders NV-1710-0051
RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance NV-1715-0368

Horizontal
A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance NV-1715-0297

Hospital
Advanced Hospital Corpsman NV-0709-0008
Advanced Hospital Corps Technician, Class B NV-0709-0008
Basic Hospital Corpsman, Class A CG-0703-0001
Basic Hospital Corps School, Class A NV-0703-0005
Hospital Corpsman, Advanced NV-0709-0008
Hospital Corpsman, Basic NV-0703-0005
Hospital Corpsman, Class A NV-0703-0005
Hospital Corpsman (HM) CG-0709-0001
Naval School of Hospital Administration NV-0799-0001

Hot
F/RF-4B J79-GE-8/8A Hot Section and Related Systems Intermediate Maintenance NV-1704-0202

Hovering
Electronic Hovering and Depth Control Combined Maintenance NV-1715-0934
Electronic Hovering and Missile Compensation NV-1715-0934

HT-A
Damage Controlmen Class A HT-A Phase I NV-1728-0012

HU-16E
HU-16E Aircraft Maintenance Class C CG-1704-0003

Hull
Pressure Hull Welders NV-1710-0049
Shipfitters Hull Maintenance Technician, Class A, Phase 2 NV-1723-0005

Human
Human Resource Management Instructor NV-1512-0006
Human Resource Management Specialist NV-1512-0005
Intercultural Relations—Human Resources Development NV-1512-0004

Hungarian
Hungarian DD-0602-0001
DD-0602-0002
DD-0602-0003

Hybrid
Digital, Analog, and Hybrid Computer Fundamentals NV-1402-0013

Hydraulic
A-7E Hydraulic and Pneumatic Systems Organizational Maintenance NV-1704-0013
Aviation Support Equipment Technician, Class A (Hydraulic Specialty) NV-1704-0112
Aviation Support Equipment Weapons Loaders Hydraulic Systems Intermediate Level Maintenance NV-1704-0110
E-1B Airframe and Hydraulic Systems Organizational Maintenance NV-1704-0195
Electric Hydraulic Power Drive for 5"/38 Caliber Dual Purpose Single Mount NV-2202-0075
F-14A Airframe and Hydraulic Systems Specialist (Crew Leader) Organizational Maintenance NV-1704-0215
F-14A Airframe and Hydraulic Systems Technician (Crew Member) Organizational Maintenance NV-1704-0216
F-4B/J Airframe and Hydraulic Systems Maintenance

NV-1704-0056

F-4B/J Airframe and Hydraulic Systems Organizational Maintenance NV-1704-0056

F/RF-4B/J Hydraulic Organizational Maintenance NV-1704-0030

H-46 Hydraulic System Organizational Maintenance NV-1704-0194

H-53 Hydraulic Systems Organizational Maintenance NV-1704-0063

HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance NV-1704-0058

Hydraulic Systems and Equipment Operation and Maintenance CG-1704-0020

OV-10A Flight Control and Hydraulic Systems Organizational Maintenance NV-1704-0103

P-3 Structures, Hydraulic Power and Flight Controls Organizational Maintenance NV-1704-0206

RA-5C Structures and Hydraulic Sub-Systems NV-1704-0041

RA-5C Structures and Hydraulic Sub-Systems Organizational Maintenance NV-1704-0041

SH-3 Airframe and Hydraulic Systems Maintenance NV-1704-0124

SH-3 Airframes and Hydraulic Systems Organizational Maintenance NV-1704-0047

UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance NV-1704-0057

UNREP Hydraulic and Mechanical Component Maintenance (Sending Units) NV-1710-0016

Hydraulics

A-6A Hydraulics and Flight Controls Organizational Maintenance NV-1704-0129

A-6 Hydraulics, Flight Control and Structures Organizational Level Maintenance NV-1704-0129

A7A/B Structures, Hydraulics and Pneumatic Systems Maintenance NV-1704-0190

Aviation Structural Mechanic H (Hydraulics), Class A NV-1704-0128

Aviation Structural Mechanic H (Hydraulics), Class B NV-1704-0087

Aviation Support Equipment Technician Hydraulics and Structures, Class A NV-1704-0138

C-2A Hydraulics/Airframes System Maintenance NV-1704-0143

C-2A Hydraulics/Airframes System Organizational Maintenance NV-1704-0143

E-2A Hydraulics/Airframes System Maintenance NV-1704-0155

E-2A Hydraulics/Airframes Systems Organizational Maintenance NV-1704-0155

EA-6B Hydraulics and Flight Control Organizational Maintenance NV-1704-0223

Electricity, Electronics and Hydraulics, Class P NV-1715-0565

F/RF-4B Structures and Hydraulics Maintenance NV-1704-0122

Industrial Hydraulics by Correspondence CG-1704-0014

KC-130F Airframes and Hydraulics Organizational Maintenance NV-1704-0191

P-3 Hydraulics and Flight Controls System Maintenance, No. 10 NV-1704-0050

P-3 Hydraulics, Flight Control Systems and Structures Organizational Maintenance NV-1704-0161

S-2D/E Airframes and Hydraulics Systems Maintenance NV-1704-0066

UH-34D Airframe, Hydraulics and Flight Controls NV-1704-0064

IBM

IBM System 360 Computer System Programming (COBOL Language), Class C NV-1402-0007

IBM System 360 Disk Operating System (DOS) Operations MC-1402-0018

IBM System 360 (DOS) COBOL Programming MC-1402-0011

IBM System 360 Operating System (OS) Operations MC-1402-0023

IBM System 360 (OS) Advanced Coding MC-1402-0037

IBM System 360 (OS) Advanced Programming Techniques) MC-1402-0024

IBM System 360 OS Assembler Language MC-1402-0031

IBM System 360 OS COBOL Language (Entry-level) MC-1402-0029

IBM System 360 (OS) COBOL Programming MC-1402-0013 MC-1402-0036

IBM System 360 (OS) Data Control Techniques MC-1402-0042

IBM System 360 (OS) Data Management MC-1402-0039

IBM System 360 OS FORTRAN IV Language (Entry-level) MC-1402-0043

IBM System 360 OS FORTRAN Programming MC-1402-0034

IBM System 360 OS PL/1 Programming MC-1402-0035

IBM System 360 OS Programming MC-1402-0030

IBM System 360 OS System Control MC-1402-0033

IBM System 360 OS System Control and Data Management MC-1402-0038

IBM System 360 (OS) Systems Programmer MC-1402-0041

IBM System 360 OS Systems Programming MC-1402-0032

IC

IC Electrician, Class B NV-1715-0755

IC Electricians, Class A NV-1715-0729

Interior Communications (IC), Class A, Part II (Interior Communications Equipment) NV-1715-0173

Interior Communications (IC) Electrician, Class B NV-1715-0755

Interior Communications (IC) Electrician, Class C7 NV-1715-0755

Interior Communications (IC) Package Course for SSN/SSBN NV-1715-0886

Submarine Interior Communications (IC) Systems NV-1715-0642

Ice

Ice Observer by Correspondence CG-1304-0006

Ice Observer, Class C NV-2202-0070

ICR

Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse NV-1715-0839

Identification

A-4E Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0452

CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0101

Class C Field Oil Identification Laboratory CG-1601-0001

F-4B Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1704-0076

F-4B Communication Navigation Identification (CWI) Organizational Maintenance NV-1715-0255

F-4J Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1704-0074

F-4J Communication Navigation Identification (CNI) Organizational Maintenance NV-1715-0612

F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0688

H-46 AN/APX-6B and AN/APA-89 Identification System Intermediate Maintenance

NV-1715-0034
P-3 AN/APX-6 Radar Identification System Intermediate Maintenance
NV-1715-0118
RA-5C Communication Navigation Identification (CNI) and DECM Organizational Maintenance
NV-1704-0075
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication Navigation Identification (CNI) Line Troubleshooting Maintenance
NV-1715-0357

IFF
AIMS Mk XII IFF System Maintenance (Electronics Technician, Class C1)
NV-1715-0812
AN/APX-64(V) IFF Transponder Set Intermediate Maintenance
NV-1715-0563
AN/APX-72 Series IFF Transponder System Maintenance
NV-1715-0811
AN/APX-76A Air/Air IFF Interrogator Set Intermediate Maintenance
NV-1715-0434
F-4B/J KY-532A/ASQ IFF Transponder Intermediate Maintenance
NV-1715-0309
IFF AN/APX-72 and AN/UPX-17 Combined Maintenance
NV-1715-0914
IFF Transponder AN/APX-72 and AN/UPX-17 Combined Maintenance, Class F1
NV-1715-0914
KY-532A/KY-533A IFF Transponder Intermediate Maintenance
NV-1715-0184
Mk XII IFF Systems, Class C
NV-1715-0033
P-3 Radar and IFF Systems Organizational Maintenance
NV-1715-0114

Illuminator
Continuous Wave Illuminator (CWI) Common Core
NV-1715-0163

Illustration
Medical Illustration Technic
NV-0202-0001
Medical Illustration Technician, Class C
NV-0202-0001

Illustrative
Illustrative Photography C1
NV-1709-0017

Illustrator
Illustrator Draftsman, Class A
NV-1713-0002

Independent
AN/SQA-13 (V) Independent Variable Depth Sonar Operation and Maintenance
NV-1715-0772
Independent Duty Technician
NV-0709-0008

Indicating
RA-5C Electrical and Indicating Systems (Intermediate Maintenance)
NV-1704-0099
RA-5C Electrical and Indicating Systems Organizational Maintenance
NV-1704-0069

Indicator
A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational)
NV-1704-0098
A6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance
NV-1715-0159
APA-56 Indicator Assembly
NV-1715-0707
Bright Radar Indicator Tower Equipment Maintenance, Class C
NV-1715-0276
E-2A Computer Indicator (AN/ASA-27) Intermediate Maintenance
NV-1715-0046
Electronics Technician AN/SPA-25 Indicator Group Class C Maintenance
NV-1715-0510
Electronics Technician, AN/SPA-34 Indicator Group, Class C
NV-1715-0310
Electronics Technician, Class C, Indicator Group AN/SPA-41 Maintenance
NV-1715-0018
Electronics Technician, Indicator Group AN/SPA-40, Class C
NV-1715-0013
P-3 AN/APA-125A Indicator Intermediate Maintenance
NV-1715-0172
P-3 AN/APA-125A Indicator Maintenance, No. 48
NV-1715-0172
P-3 AN/AQA-1 Sono Indicator System Intermediate Maintenance
NV-1715-0120
P-3 AN/ASA-16 Indicator Group Organizational Maintenance
NV-1715-0115
S-2D/E AQA-4(V) Indicator Group System Intermediate Maintenance
NV-1715-0561

Indicators
Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1
NV-1715-0892

Indoctrination
General Service Indoctrination School
CG-2205-0005
Junior Officer Electronic Indoctrination by Correspondence
CG-1715-0062
Limited Duty Officer (LDO) Indoctrination
NV-2202-0094
Loran Officers Indoctrination
CG-1715-0023
Marine Safety Basic Indoctrination
CG-0802-0002
Officer Candidate School (Seamanship, Orientation, Operations & Military Indoctrination)
CG-2202-0001
Sea Duty Indoctrination
MC-2204-0014
Special Indoctrination
MC-2204-0043
Women Officers Indoctrination
MC-1408-0012

Indonesian
Indonesian
DD-0602-0002
DD-0602-0003
DD-0602-0004
Indonesian—Malay
DD-0602-0002

Indonesian—Malay
Indonesian—Malay
DD-0602-0002

Industrial
Industrial College of the Armed Forces (Resident Program)
DD-1511-0003
Industrial Hydraulics by Correspondence
CG-1704-0014
Industrial Security Specialist
DD-1728-0001
National Security Management (Correspondence Course of the Industrial College of the Armed Forces)
DD-1511-0001

Industry
Industry Financial Management
DD-1408-0003

Inertial
A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance
NV-1715-0475
A-6 Ship and Shore Inertial Platform Test Station Intermediate Maintenance
NV-1715-0177
A-7E AN/ASM-375 Inertial Measurement System Test Set Intermediate Maintenance
NV-1715-0146
Electronics Technician, Class C, SSBN Ships Inertial Navigation, FBM Tender Navigation Maintenance
NV-1715-0065
Electronics Technician, Class C, SSBN Ships Inertial Navigation System Mk 2 Mod 0-6 Technician
NV-1715-0066
Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance
NV-1715-0426
Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance (Enlisted)
NV-1715-0426
RF-4B AN/ASN-46/56 Navigational Computer and Inertial Navigation System Intermediate Maintenance
NV-1715-0228
Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Control Theory
NV-1715-0232
SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 4 Technician
NV-1715-0440
SSN Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance
NV-1715-0426

Infantry
Infantry Replacement and Individual Combat Training
MC-2204-0008
Infantry Weapons Armorer
MC-1601-0006
MC-2204-0020
Infantry Weapons Armorer (Basic)
MC-2204-0052
Infantry Weapons Armorers (Advanced)
MC-2204-0044

Infantry Weapons
Infantry Weapons Armorer (Basic)
MC-2204-0052

In-Flight
E-2A AN/ASM-33A In-Flight

Performance Monitor Maintenance
NV-1715-0471

Information

Advanced Information Specialist
DD-0504-0002

Amphibious Support Information System Operator
NV-1402-0034

Combat Information Center (CIC) Officer, Class O
NV-2202-0069

Combat Information Center (CIC) Watch Officer, Class O
NV-2202-0074

Common User Digital Information Exchange System (CUDIXS) Maintenance
NV-1715-0872

Common Users Digital Information Exchange System (CUDIXS) Operators
NV-1715-0879

Data Base Management—LCC Amphibious Support Information System Language—Operator
NV-1402-0034

Inactive Duty Reserve Combat Information Center (CIC) Class—Basic, Supervisory and Officer Team Training
NV-1715-0509

Information Enlisted
DD-0504-0004

Information Officer
DD-0504-0009
NV-0504-0001

Information Officer Basic
DD-0504-0009

Information Officer (Reserve Component)
DD-0504-0011

Information Security Management
DD-1728-0002

Information Specialist
DD-0504-0004

Information Specialist (Broadcaster)
DD-0505-0001

Information Specialist (Journalist)
DD-0504-0001

LCC Amphibious Support Information System Operator
NV-1402-0034

Public Information Enlisted
DD-0504-0008

Public Information Officer
DD-0504-0007

Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat)
DD-0504-0010

Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance
NV-1715-0873

Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance
NV-1715-0871
NV-1715-0878

Troop Information and Education Enlisted
DD-0504-0005

Troop Information and Education Officer
DD-0504-0006

Infrared

RA-5C AN/AAS-21 Infrared Detecting Set Intermediate Maintenance
NV-1715-0222

RF-4B AN/AAS-18 Infrared Reconnaissance Mapping System Intermediate Maintenance
NV-1715-0225

Inktronic

Electronics Technician Class C, AN/FGC-73 Teletypewriter Routing Set and AN/UGR-14 Inktronic Page Printer
NV-1715-0019

Input

Central Navigation Computer (Input/Output)
NV-1402-0026

Naval Tactical Data System (NTDS)—Data Input—Basic
NV-1715-0673

Inspection

Aircraft Maintenance Nondestructive Inspection School, Class C
NV-1704-0156

Inspector

Safety Inspector Class C
NV-1728-0007

Installation

Data Processing Installation Management
MC-1402-0020

Data Processing Installation Management Seminar
MC-1402-0020

Data Processing Installation Managers Seminar
MC-1402-0020

Installations

Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance
NV-1715-0873

Instruction

Programmed Instruction Techniques
NV-1406-0006

Programmed Instruction Writer
NV-1406-0006

Instructional

Instructional Programmers (Class C)
NV-1406-0005

Instructor

Academic Instructor Training
NV-1406-0003

Basic Prop Flight Instructor
NV-1606-0018

Close Combat Instructor
MC-0803-0001

Drill Instructor
MC-2204-0001

Enlisted Instructor Orientation
MC-1406-0001

Fire Fighter Instructor Course
NV-1728-0004

Firefighting Instructor
NV-1728-0004

Flight Instructor Indoctrination Group
NV-1606-0042

Flight Instructor Training
NV-1606-0019

Formal School Instructor (IAC)
MC-1406-0012

Human Resource Management Instructor
NV-1512-0006

Instructor Basic
NV-1406-0008

Instructor, Class 1, Course 'Alfa'
NV-1406-0008

Instructor, Class C-1 Administration and Counseling
NV-1408-0008

Instructor, Class C (Career Information and Counseling)
NV-1406-0004

Instructor Orientation
MC-1406-0003

Instructor Training
CG-1406-0002

Instructor Training, Class C
CG-1406-0001
NV-1406-0001

Instructor Training School Class C
NV-1406-0001

Officer Instructor Orientation
MC-1406-0010

Physical Training Instructor
MC-0802-0001

Physical Training Instructor (Men)
MC-0802-0001

Physical Training Instructor (Women)
MC-1406-0002

Prospective Advanced Navigation Flight Instructor
NV-1606-0038

Prospective Phase I CV (Jet) (TF/AF-9J) Tactical Flight Instructor
NV-1606-0037

Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor
NV-1606-0041

Prospective TA-4J Flight Instructor
NV-1606-0021

Prospective TF/TAF-9J Flight Instructor
NV-1606-0039

Prospective VA (Prop) Tactical Flight Instructor
NV-1606-0040

Small Arms Instructor
CG-1408-0001
CG-2205-0007

Technical Instructor—Basic
MC-1406-0011

Tradevman I (Instructor) Class A
NV-1406-0002

Water Safety/Survival Instructor
MC-0803-0002

Women Physical Training Instructor
MC-1406-0002

Instructors

Atomic, Biological and Chemical (ABC) Defense for Shipboard Instructors
NV-0802-0001

Television Instructors
NV-1406-0007

Instrument

A-7E Electrical and Instrument Systems Organizational Maintenance
NV-1704-0080

A-7 Electrical and Instrument Systems Organizational Maintenance
NV-1704-0079

Aviation Electrician's Mate I (Instrument), Class A
NV-1704-0068

CH-46A Electrical and Instrument Systems
NV-1704-0077

E-1B Electrical and Instrument Systems Organizational Maintenance
NV-1714-0013

H-46 Electrical and Instrument Systems Organizational Maintenance
NV-1714-0011

- H-53 Electrical and Instrument Systems Organizational Maintenance NV-1704-0235
- Instrument Repair Officer MC-1721-0003
- Optical Instrument Repairman MC-1721-0001
- Optical Instrument Repairman (Advanced) MC-1721-0004
- Optical Instrument Repairman (Basic) MC-1721-0002
- Optical Survey Instrument Repair DD-1721-0001
- RADIAC Instrument Maintenance NV-1715-0545
- Test Instrument Repairman MC-1715-0027

Instrumentalist
- Band Instrumentalist (Army) NV-1205-0001

Instrumentman
- Instrumentman (Calculator Repair), Class C NV-1706-0001

Instrumentmen
- Instrumentmen, Class A NV-1721-0004
- Instrumentmen—Watch Repair NV-1721-0005

Instruments
- C-2A Electrical and Instruments Organizational Maintenance NV-1715-0150
- F-8 Electrical, Instruments and Stabilization Systems Organizational Maintenance NV-1715-0183
- H-53 Electrical and Instruments Intermediate Maintenance NV-1704-0236
- KA-3A/KA-3B Electrical and Instruments Organizational Maintenance NV-1714-0014
- S-2D/E Electrical and Instruments Maintenance, No. 6 NV-1704-0086

Insulation
- Shipboard Thermal Insulation (Lagging) NV-1710-0039

Integrated
- A-4 Integrated Electrical Systems Organizational Maintenance NV-1704-0185
- A-7A/B Integrated Avionics Weapons System Technician Organizational Maintenance NV-1715-0450
- AN/ASQ-17B Integrated Electronics Central Intermediate Maintenance NV-1715-0515
- AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance NV-1715-0540
- E-1B Integrated Electrical System Organizational Maintenance NV-1715-0498
- E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance NV-1715-0746
- Integrated Announcing System AN/WIC-2 Combined Maintenance NV-1715-0319
- Integrated Avionics Radar System Technician NV-1715-0035
- Integrated Avionics Weapons System Specialist NV-1715-0266
- Integrated Avionics Weapons System Technician NV-1715-0267
- Marine Corps Integrated Maintenance Management (Officer) MC-1402-0028
- P-3C Integrated Avionics System Technician NV-1715-0329
- P-3C Integrated Electrical Systems Organizational Maintenance NV-1704-0089
- P-3 Integrated Electrical System Organizational Maintenance NV-1704-0101

Intelligence
- Amphibious Intelligence Staff Officer NV-1606-0004
- Amphibious Staff Intelligence Officer (ASIO) NV-1606-0059
- Aviation Electronics Intelligence, Class O/C NV-1715-0504
- Command Intelligence Officer (CIO) NV-1606-0024
- Defense Intelligence Course DD-1511-0004
- Electronic Warfare Intelligence Operator NV-1715-0021
- Fleet Air Intelligence Officer NV-2202-0023
- Fleet Officer and Fleet Enlisted Air Intelligence NV-2202-0022
- Intelligence Advisor Vietnam NV-1606-0001
- Intelligence/Electronic Warfare Officer NV-1715-0332
- Intelligence Man (Air/Ground) NV-1606-0006
- Intelligence Officer, Vietnam NV-1606-0003
- IOIC Intelligence Data System (Storage and Retrieval) Maintenance NV-1715-0030
- Marine Enlisted Basic Combat Intelligence NV-1606-0005
- National Senior Intelligence DD-1606-0001
- Naval Field Intelligence Officer, Vietnam NV-1606-0003
- Postgraduate Intelligence Course DD-1511-0004
- Radar (Target) Intelligence NV-1709-0015
- Reserve Air Intelligence (RAI) NV-1606-0055
- Reserve Basic Intelligence Training Subjects (BITCS) NV-1606-0056

Intelligenceman
- Photographic Intelligenceman (PT) NV-1606-0030

Inter-American
- Inter-American Defense College DD-1511-0005

Intercept
- Air Intercept Control, Class O NV-1704-0001
- Air Intercept Controller NV-1704-0002
- Air Intercept Controller Supervisor NV-1704-0005
- Air Intercept Control (Requalification), Class O/C NV-1704-0115
- Air Intercept Control (Supervisor), Class C/O NV-1704-0117
- Basic Naval Tactical Data System (NTDS) Air Intercept Controller NV-1715-0674

Intercultural
- Intercultural Relations—Facilitator Training NV-1512-0003
- Intercultural Relations—Human Resources Development NV-1512-0004
- Intercultural Relations—Overseas Duty Training NV-1512-0002
- Intercultural Relations—Race Relations Specialist Training NV-1512-0001
- Intercultural Relations—Vietnam Advisor Training NV-1513-0003

Interior
- Interior Communications (IC), Class A, Part II (Interior Communications Equipment) NV-1715-0173
- Interior Communications (IC) Electrician, Class B NV-1715-0755
- Interior Communications (IC) Electrician, Class C7 NV-1715-0755
- Interior Communications (IC) Package Course for SSN/SSBN NV-1715-0886
- Submarine Interior Communications (IC) Systems NV-1715-0642

Intermediate
- Avionics Intermediate, Class B NV-1715-0102
- Defense Language Institute Intermediate Courses DD-0602-0006
- Intermediate Avionics, Class B NV-1715-0102
- Intermediate Maintenance Level Data Analysis, Class C NV-1115-0001
- Intermediate Welding NV-1710-0054
- Music Intermediate, Class C NV-1205-0003
- Music Intermediate, Class C-1 NV-1205-0003
- Reserve Cryptologic Technician—Intermediate Cryptanalysis NV-1715-0820
- Reserve Naval Security Group-13.1 Intermediate Cryptanalysis NV-1715-0820

International
- Cryptologic Technician T, Field Operations Type Two, Class A3,

International Commercial Radio (ICR) Non-Morse
NV-1715-0839

Interpretation
IOIC Photo Interpretation Officer
NV-1709-0006
IOIC Photo Interpretation Operator
NV-1709-0007
Metrical Photographic Interpretation
NV-1709-0014
Photographic Interpretation/Radar Target Analysis
NV-1606-0030
Strategic Photographic Interpretation
NV-1709-0012
Tactical Photographic Interpretation
NV-1709-0011

Interrogation
Interrogation of Prisoners of War
MC-1728-0002

Interrogator
AN/APX-76A Air/Air IFF Interrogator Set Intermediate Maintenance
NV-1715-0434
Electronics Maintenance Course Interrogator Set AN/TPX-42A(V) 5, Class C
NV-1715-0566

Interviewing
Interviewing and Classification
NV-1406-0018
Personnelman, Class C-1, Interviewing and Classification
NV-1406-0018

IOIC
CVA IOIC Storage and Retrieval Officer
NV-1402-0043
IOIC Electronic Data Processing Maintenance
NV-1715-0581
IOIC Intelligence Data System (Storage and Retrieval) Maintenance
NV-1715-0030
IOIC Maintenance Officer
NV-1402-0029
IOIC Photographic Processing/Maintenance
NV-1709-0008
IOIC Photographic Processing Officer
NV-1709-0013
IOIC Photo Interpretation Officer
NV-1709-0006
IOIC Photo Interpretation Operator
NV-1709-0007
IOIC Storage and Retrieval Operator/Officer Course
NV-1402-0035
IOIC Supervisor
NV-1606-0002
IOIC Systems Maintenance
NV-1715-0084

Ionospheric
AN/UPR-2 Ionospheric Sounder Set Maintenance (Electronics Technician, Class C1)
NV-1715-0004

Isotope
Radioactive Isotope Technic
NV-0705-0002
Radioactive Isotope Technician, Class C
NV-0705-0002

Italian
Italian
DD-0602-0001
DD-0602-0002
DD-0602-0004
DD-0602-0009
Italian—Sicilian
DD-0602-0002

Italian—Sicilian
Italian—Sicilian
DD-0602-0002

J52-P408
J52-P408 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0024

J52-P6/6A/8A
J52-P6/6A/8A Intermediate Maintenance
NV-1704-0181

J52-P-6A/8A
A-4(J52-P-6A/8A) Power Plant and Related Systems Organizational Maintenance
NV-1704-0170
J52-P6A/8A Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0119

J57-P-16/20
F-8 J57-P-16/20 Intermediate Maintenance
NV-1704-0163
F-8 J57-P-16/20 Intermediate Maintenance/Complete Engine Repair
NV-1704-0163

J60-P-3A/6
J60-P-3A/6 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0037

J79-GE-8/10
J79-GE-8/10 Engine Intermediate Maintenance
NV-1704-0055
J79-GE-8/10 Intermediate Maintenance
NV-1704-0055

J79-GE-8/8A
F/RF-4B J79-GE-8/8A Cold Section Repair
NV-1704-0201
F/RF-4B J79-GE-8/8A Hot Section and Related Systems Intermediate Maintenance
NV-1704-0202

J85-GE-4
J85-GE-4 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0026

Jamming
AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance
NV-1715-0053

Japanese
Japanese
DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0004
DD-0602-0005

Jet
Aviation Machinist's Mate J (Jet Engine), Class A
NV-1704-0148
Aviation Machinist's Mate J (Jet Engine), Class B
NV-1704-0159
Aviation Machinist's Mate J (Turbo-Jet), (Class A)
NV-1704-0148
Basic Jet Navigation, Class O
NV-1606-0023
Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor
NV-1606-0041
TA-4J Advanced Jet
NV-1606-0025

Jezebel
Advanced Jezebel (VP)
NV-2202-0105
Jezebel Gram Analysis for AW's P3A/B (DIFAR Retrofit)
NV-1715-0704
S-2D/E AN/AKT-19A Multi-Channel Jezebel Relay Intermediate Maintenance
NV-1715-0243

Joint
Joint Aviation Supply and Maintenance Material Management
NV-1405-0009

Journalism
Electronic Journalism
DD-0505-0003
Recruiters Journalism, Class C-1
NV-0504-0002

Journalist
Basic Military Journalist
DD-0504-0001
Information Specialist (Journalist)
DD-0504-0001

Journalists
Journalists, Class A
NV-0504-0003
Journalists, Class B
NV-0504-0004

Journeyman
Journeyman Electrician
MC-1714-0001
Journeyman Engineer Equipment Mechanic
MC-1710-0025
Journeyman Plumbing and Water Supply Man
MC-1710-0012
Journeyman Refrigeration Mechanic
MC-1730-0004
Loran-C Journeyman
CG-1715-0059
Plumbing and Water Supply Journeyman
MC-1710-0012

Judge
Judge Advocate General's Corps Indoctrination
NV-2202-0051

Jumpmaster
Jumpmaster Naval Parachutist, Class C1
NV-2202-0026
Naval Jumpmaster Class C
NV-2202-0026

Junior
Amphibious Junior Division Officer Indoctrination
NV-2202-0090
Amphibious Junior Officer Indoctrination
NV-2202-0046
Junior Course
MC-1408-0010
MC-2204-0021
Junior Officer Electronic Indoctrination by Correspondence
CG-1715-0062
Junior Officer Leadership and Management

CG-1717-0003
Junior School
MC-2204-0021
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs)
CG-1717-0003
Noncommissioned Officer (NCO) Leadership (Junior)
MC-2204-0016
Platoon Leaders Class (Junior)
MC-2204-0037
Platoon Leaders (Combined Junior/Senior)
MC-2204-0050
Women Officer Training (Junior)
MC-2204-0005

Justice
Military Justice (Lawyer)
NV-1728-0016
Military Justice Non-Lawyer
NV-1728-0015
Military Justice (Officers)
NV-1728-0017

KA-3A
KA-3A/KA-3B Electrical and Instruments Organizational Maintenance
NV-1714-0014

KC-130F
KC-130F Airframes and Hydraulics Organizational Maintenance
NV-1704-0191
KC-130F AN/APN-59B Radar Intermediate Maintenance
NV-1715-0041
KC-130F AN/APN-59 Radar Maintenance
NV-1715-0036
KC-130F Electrical Systems and Circuits Maintenance
NV-1704-0071
KC-130F Electrical Systems Organizational Maintenance
NV-1704-0071
KC-130F Propeller Intermediate Maintenance
NV-1704-0193
KC-130-F S-5 Automatic Pilot and Related Instruments Intermediate Maintenance
NV-1715-0736
KC-130F T-56-A-16 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0014
KC-130F T-56-A-7 Turboprop Engine and Related Systems Maintenance
NV-1704-0125
KC-130F T-56-A-7 Turboprop Engine and Related Systems Organizational Maintenance
NV-1704-0125

Keying
Teletype Maintenance, Class C, Low Level Keying Teletype Maintenance
NV-1715-0663

Korean
Korean
DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0004
DD-0602-0005
DD-0602-0006

KY-308/ASQ
E-2A AN/ASQ-58 Integrated Electronic Central IFF—KY-308/ASQ and Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0377

KY-309
E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0375
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance
NV-1715-0797

KY-312
F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance
NV-1715-0394
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance
NV-1715-0797

KY-531
RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director
NV-1715-0562
RT-736 and KY-531 TACAN (Tactical Air Navigation) Intermediate Maintenance
NV-1715-0796

KY-532A/ASQ
F-4B/J KY-532A/ASQ IFF Transponder Intermediate Maintenance
NV-1715-0309

KY-532A/KY-533A
KY-532A/KY-533A IFF Transponder Intermediate Maintenance
NV-1715-0184

Laboratory
Blood Bank and Clinical Laboratory Technic
NV-0702-0003
Class C Field Oil Identification Laboratory
CG-1601-0001
Clinical Laboratory Assistant Technic
NV-0702-0008
Clinical Laboratory Technician, Class C
NV-0702-0003
Medical Laboratory Technician Advanced
NV-0702-0003
Optician Laboratory Technician, Class C
NV-0706-0002
Optician Technic Laboratory
NV-0706-0002
Photographic Laboratory Technician C1
NV-1709-0018

LAMPS
Light Airborne Multipurpose System (LAMPS) Operator
NV-2202-0034
Light Airborne Multi-Purpose System (LAMPS) Sensor Operator
NV-1715-0767
NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Tactics
NV-2202-0035
SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance
NV-1715-0697

Landing
All Weather Carrier Landing System Equipment Maintenance, AN/SPN-42, Class C
NV-1715-0286
Automatic Carrier Landing System Equipment Maintenance AN/SPN-42 (ET), Class C
NV-1715-0286
Landing Craft Beach and Surf Salvage
NV-1708-0002
Optical Landing Systems Maintenance, Class C
NV-1715-0609
Ship Landing Party Indoctrination
NV-2202-0049

Language
Defense Language Institute Advanced Courses
DD-0602-0007
Defense Language Institute Aural Comprehension Courses
DD-0602-0003
Defense Language Institute Basic Courses (1954–1956)
DD-0602-0001
Defense Language Institute Basic Courses (After 1956)
DD-0602-0002
Defense Language Institute Courses—East Coast Branch
DD-0602-0009
Defense Language Institute Extended or Basic-Intermediate Courses
DD-0602-0005
Defense Language Institute Intermediate Courses
DD-0602-0006
Defense Language Institute Short Basic Courses
DD-0602-0004
Defense Language Institute Special Courses
DD-0602-0008
Defense Language Institute Support Command Courses
DD-0602-0010
High Intensity Language Training (Vietnamese)
MC-0602-0001
National Cryptologic School Resident Language Courses
DD-0602-0011

Launch
Aircraft Launch and Recovery Equipment (C-13 and C-13 Mod 1 Catapults), Class C
NV-1704-0187
Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C
NV-1704-0187
Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C
NV-1710-0071
Aircraft Launch and Recovery Equipment, Class O
NV-1704-0184
Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O
NV-1704-0200

Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O NV-1704-0183
Aviation Boatswain's Mate E (Aircraft Launch and Recovery Equipment), Class A NV-1704-0042
Marine Aircraft Launch and Recovery Equipment, Class A NV-1710-0061

Launcher
CHAFFROC MK 28 Mod 1 Launcher Systems Maintenance NV-1715-0148
Gunner's Mate Class C Rocket Launcher Mk 108 NV-1715-0618
Launcher Mk 21 Mod 2 Advanced Training, Class F1 NV-1715-0917
Launcher Technician NV-1715-0763
Launcher Technician MX 88 Fire Control Conversion NV-1715-0623
Launcher Technician (Tender) NV-1710-0030
Missile Launcher Mk 17 Mod 1 Advanced Training, Class C1 NV-1715-0910
Missile Launcher Mk 21 Mod 2 Theory and Operation NV-1715-0575
Shipboard Decoy System (CHAFFROC) Launcher Operation and Maintenance Mk 28 Mod 1–5 NV-1715-0684
Terrier Missile Launcher System Repair MC-1715-0080
Terrier Missile Launcher System Repairman MC-1715-0080

Launching
ASROC Launching Group Mk 16 NV-1715-0770
Gunner's Mate Class C ASROC Launching Group NV-1715-0626
Gunner's Mate Class C Guided Missile Launching System NV-1715-0620

LAVA SQS-54
LAVA SQS-54 Maintenance NV-1715-0320

Law
Maritime Law Enforcement CG-1728-0003

Lawyer
Military Justice (Lawyer) NV-1728-0016

LDO
Aviation Indoctrination, Limited Duty Officer (LDO) NV-2202-0087
Aviation Limited Duty Officer (LDO) Indoctrination NV-1606-0044
Limited Duty Officer (LDO) Indoctrination NV-2202-0094

Leaders
Amphibious Vehicle Unit Leaders (Enlisted) MC-1710-0010
Tank Unit Leaders (Enlisted) MC-1710-0009

Leadership
Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership MC-1703-0012
Advanced Disbursing Man Leadership MC-1408-0007
Bakery Noncommissioned Officer (NCO) Leadership MC-1729-0006
Chief Petty Officer Leadership, Class C NV-2202-0050
Disbursing Officer Leadership MC-1408-0013
Food Service Noncommissioned Officer (NCO) Leadership MC-1729-0005
Food Service Staff Noncommissioned Officer (NCO) Leadership MC-1729-0004
Ground Supply Officer Leadership MC-1401-0002
Junior Officer Leadership and Management CG-1717-0003
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs) CG-1717-0003
Leadership and Management for Officers (LMT) NV-1717-0013
Leadership and Management for Petty Officers (LMT) NV-1717-0013
Leadership Schools Class C-1 NV-2202-0065
Motor Transport Staff Noncommissioned Officer (NCO) Leadership MC-1703-0016
Mountain Leadership Training, Summer MC-2204-0007
Mountain Leadership Training, Winter MC-2204-0006
Noncommissioned Officer (NCO) Leadership (Junior) MC-2204-0016
Noncommissioned Officers (NCO) Leadership (Senior) MC-2204-0015
PHIBLANT Petty Officer Leadership NV-2202-0091
Reserve Officer, Chief Leadership and Management CG-1717-0004
Reserve Petty Officer Leadership and Management CG-1717-0002
Senior Petty Officer Leadership and Management CG-1717-0001
Special Mess Leadership Training MC-1729-0019
Special Mess Training Leadership MC-1729-0016
Supply Chief Leadership MC-1405-0011
Supply Noncommissioned Officer (NCO) Leadership MC-1405-0006
Warehousing NCO Leadership MC-1405-0002
Warehousing Noncommissioned Officer (NCO) Leadership MC-1405-0002
Warehousing Staff Noncommissioned Officer (NCO) Leadership MC-1405-0013
Woman Marine Noncommissioned Officer (NCO) Leadership MC-2204-0018

Legal
Advanced Legal Services MC-1728-0003
Basic Legal Administration MC-1728-0004
Basic Legal Clerk and Reporter MC-1407-0001
Legal Clerk and Court Reporting NV-1407-0002
Legal Clerk/Court Reporter MC-1407-0001
Legal Services Man MC-1728-0004
Legal Services Man/Reporter, Phase I and Phase II MC-1728-0004
Legal Services Man/Reporter, Phase III MC-1728-0005
Legal Services Reporter SPCM (Closed Microphone) MC-1728-0005

Liaison
Naval Gunfire Liaison Officer NV-2202-0058 NV-2202-0060

Light
Light Airborne Multipurpose System (LAMPS) Operator NV-2202-0034
Light Airborne Multi-Purpose System (LAMPS) Sensor Operator NV-1715-0767 NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Tactics NV-2202-0035
Light Antiaircraft Artillery (AAA) Fire Control Repair MC-1715-0034
P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance NV-1715-0358
SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance NV-1715-0697

Limited
Aviation Indoctrination, Limited Duty Officer (LDO) NV-2202-0087
Aviation Limited Duty Officer (LDO) Indoctrination NV-1606-0044
Limited Duty Officer (LDO) Indoctrination NV-2202-0094

Line
A-5A RA-5C AN/ASB-12 Line and Shop Maintenance NV-1715-0521
Disturbed Line of Sight Gunfire Control System Maintenance NV-1715-0759
Line Officer Supply (LOS) NV-1405-0006

Lithium
Lithium Bromide Air Conditioning NV-1701-0002

Lithographic
Lithographic Photography DD-1719-0003
Lithographic Stripping and Platemaking DD-1719-0001

Lithuanian
Lithuanian DD-0602-0002

LM2500
LM2500 Gas Turbine Module Maintenance, Class C1 NV-1703-0008

LMT
Leadership and Management for Officers (LMT) NV-1717-0013
Leadership and Management for Petty Officers (LMT) NV-1717-0013

Locator
AN/ASH-20 (V) Flight Recorder-Locator System Intermediate Maintenance NV-1704-0230

Locomotive
American Locomotive (ALCO 251C) Diesel Engine, Class C1 NV-1712-0010
Engineman, Class C, American Locomotive (ALCO 251-C) Diesel Engine NV-1712-0010

Logic
Fundamentals of Digital Logic MC-1402-0001

Logistics
Missile Technician Poseidon Logistics NV-1715-0470

LORA
Sonar AN/SQS-23 D–G Series TRAM, MIP, LORA Maintenance NV-1715-0864

Loran
AN/APN-180 Loran A Navigation System Class C CG-1715-0028
AN/APN-70B Loran System Intermediate Maintenance NV-1715-0112
AN/ARN-81 Loran Intermediate Maintenance NV-1715-0247
AN/UPN-12 Loran Receiver Set Maintenance (Electronics Technician, Class C1) NV-1715-0814
AN/UPN-23 Loran A Receiver, Class A CG-1715-0055
C-2A AN/ARN-81 Loran Intermediate Maintenance NV-1715-0247
Electronics Technician, Class C, AN/SPN-38 Loran Receiving Set Maintenance NV-1715-0364
Electronics Technician, Class C, AN/UPN-12 Loran Receiving Set Maintenance, Class F-1 NV-1715-0814
Loran A Enlisted, Class C CG-1715-0007
Loran AN/WRN-5 Combined Maintenance NV-1715-0913
Loran 'C' Advanced Maintenance NV-1715-0899
Loran 'C' AN/WPN Refresher Maintenance Class F1 NV-1715-0899
Loran Maintenance (Enlisted) NV-1715-0338
Loran Officers Indoctrination CG-1715-0023
Loran Receiving Set AN/WPN-5 Operation and Maintenance NV-1715-0131
Loran Receiving Sets AN/SPN-38 and AN/WPN-5 Operation, Maintenance and Functional Checkout NV-1715-0131
P-3 AN/APN-70 Loran System Intermediate Maintenance NV-1715-0112
Polaris Loran 'C' Advanced Training NV-1715-0899

Loran-A
Loran-A Apprentice, Class A CG-1715-0060

Loran-C
Loran-C Journeyman CG-1715-0059

LOS
Line Officer Supply (LOS) NV-1405-0006

LST 1179
Enginemen, Class C, LST 1179 Class Controllable Pitch Propeller and Propulsion Control System NV-1710-0023
LST 1179/1182 Class Controllable Pitch Propeller and Propulsion Control System, Class C1 NV-1710-0023

LST 1182
LST 1182 Propulsion Technician, Class C1 NV-1703-0007

LVT3C
Amphibian Tractor Crewman Training LVT3C, LVTP5 MC-1710-0005

LVTA5
Armored Amphibian Crewman Training, LVTA5, LVTP5 MC-1710-0004

LVTP5
Amphibian Tractor Crewman Training LVT3C, LVTP5 MC-1710-0005
Armored Amphibian Crewman Training, LVTA5, LVTP5 MC-1710-0004

M61A1
A-7 M61A1 Gun and Associated Systems Intermediate Maintenance NV-2202-0097

MA-40
Basic Electronics (MA-40) NV-1715-0001

Machine
Advanced Office Machine Repair, Class C NV-1706-0003
AN/USQ-20 Machine Language Programming NV-1402-0019
Machine Tool Operations NV-1723-0001
Machine Tool Operator NV-1723-0001
Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language) NV-1402-0033

Machinegunner
Machinegunner MC-2204-0048

Machinery
Class A Machinery Technician CG-1723-0004
Machinery Repairmen, Class A NV-1723-0002
Machinery Repairmen, Class B NV-1723-0011
Machinery Technician First Class by Correspondence CG-1723-0001
Machinery Technician Second Class by Correspondence CG-1723-0002
Submarine (SSN/SSBN) Auxiliary Machinery Operation and Maintenance NV-1730-0004

Machinist
Aviation Machinist Mate, First Class, by Correspondence CG-1704-0008
Aviation Machinist Mate, Second Class, by Correspondence CG-1704-0007
Aviation Machinist's Mate, First Class, by Correspondence CG-1704-0008
Aviation Machinist's Mate, Second Class, by Correspondence CG-1704-0007
Repair Shop Machinist MC-1723-0006
Weapons Repair Shop Machinist MC-1723-0004

Machinist's Mate
Aviation Machinist's Mate CG-1704-0001
Aviation Machinist's Mate Class A CG-1704-0001
Aviation Machinist's Mate, First Class, by Correspondence CG-1704-0008
Aviation Machinist's Mate H (Helicopter), Class A NV-1704-0238
Aviation Machinist's Mate J (Jet Engine), Class A NV-1704-0148
Aviation Machinist's Mate J (Jet Engine), Class B NV-1704-0159
Aviation Machinist's Mate J (Turbo-Jet), (Class A) NV-1704-0148
Aviation Machinist's Mate R(Reciprocating), Class A NV-1704-0149
Aviation Machinist's Mate R (Reciprocating), Class B NV-1704-0158
Aviation Machinist's Mate, Second Class, by Correspondence CG-1704-0007

DATC Machinist's Mate Maintenance NV-1732-0005
Machinist's Mate Enlisted Maintenance NV-1710-0060

Machinist's Mates
Machinist's Mates, Class A NV-1303-0001

Magnetic
AN/ASQ-10A Magnetic Anomaly Detecting Systems Intermediate Maintenance NV-1715-0178
AN/ASQ-10 Magnetic Anomaly Detector Intermediate Maintenance NV-1715-0178
Data Systems Technician, Class C, Peripherial Group RD-281(V)/UYK Recorder Reproducer Magnetic Disk File Equipment Maintenance NV-1715-0656
Data Systems Technician RD-294/UYK Magnetic Tape Unit Maintenance, Class C NV-1715-0110
P-3 AN/ASQ-10A Magnetic Anomaly Detecting Systems Maintenance, No. 42 NV-1715-0178
RD-358 Magnetic Tape Subsystem Accelerated MC-1715-0084

Maintenance
A-6A Maintenance Supervisors Familiarization NV-1704-0078
A-6 Maintenance Supervisors Familiarization NV-1704-0165
AIMS Mk XII IFF System Maintenance (Electronics Technician, Class C1) NV-1715-0812
AN/AJM-32(V) Intermediate Maintenance NV-1715-0069
AN/ALQ-76 Intermediate Maintenance NV-1715-0057
AN/APX-72 Maintenance, Class C-1 NV-1715-0811
AN/APX-72 Series IFF Transponder System Maintenance NV-1715-0811
AN/ARC-101 Intermediate Maintenance NV-1715-0077
AN/BRD-7 Combined Maintenance, Class C1 NV-1715-0449
AN/SPG-50 Maintenance NV-1715-0306
AN/SQQ-14 Maintenance (Enlisted) NV-1715-0290
AN/UGA-3A Maintenance NV-1715-0107
AN/WPN-4 Maintenance NV-1715-0390
Automotive Maintenance Officer MC-1703-0014
Automotive Organizational Maintenance MC-1703-0008
Automotive Preventive Maintenance MC-1703-0007
Aviation Maintenance Control Administration NV-1717-0008
Basic Refrigeration Theory and Maintenance NV-1730-0001
Cryptologic Technician Maintenance NV-1715-0829
F-14A Organizational Maintenance Supervisor's Familiarization NV-1704-0211
F-4B/J Maintenance Supervisor Familiarization NV-1704-0126
IOIC Maintenance Officer NV-1402-0029
IOIC Systems Maintenance NV-1715-0084
Maintenance Analysis Test Set (MATS) Mk 352, Class F1 NV-1715-0902
Marine Corps Integrated Maintenance Management (Officer) MC-1402-0028
Motor Transport Maintenance Management MC-0419-0002
Naval Aircraft Maintenance Management NV-1717-0011
Outboard Engines Operation and Maintenance CG-1731-0001
Outboard Motors, Motor Maintenance and Overhaul, Class C CG-1731-0001
RA-5C Maintenance Supervisors Familiarization NV-1717-0005
Tracked Vehicle Maintenance Management MC-1710-0022
Tracked Vehicle Maintenance Officer MC-1703-0013
Tracked Vehicle Maintenance Officer/Staff Noncommissioned Officer Management MC-1710-0022

Malay
Indonesian—Malay DD-0602-0002
Malay DD-0602-0002

Management
Air Traffic Control Equipment Maintenance Management NV-1715-0292
Air Traffic Management NV-0419-0013
Aviation Management NV-1717-0001
Aviation Ordnance Officers (Management), Class O (AOM(0)) NV-1405-0010
Bakery Management MC-1729-0011
Basic Programming Orientation for Middle Management NV-1402-0015
Civil Engineer Corps Officer Basic—Public Works Management Specialty NV-1408-0014
Commissaryman-Steward Management Principles, Class C NV-1729-0002
Commissioned Officers' Mess Closed Mess Management NV-1729-0008
Construction Contract Administration and Management NV-1408-0009
Cryptologic Technician O, Tactical
Communications Systems Operations and Management, Class C3 NV-1715-0849
Data Base Management—LCC Amphibious Support Information System Language—Operator NV-1402-0034
Data Processing Installation Management MC-1402-0020
Data Processing Installation Management Seminar MC-1402-0020
Defense Equal Opportunity Management Institute DD-1512-0001
Defense Management Systems NV-1408-0003
Defense Security Assistance Management Core DD-1408-0001
Defense Security Assistance Management Overseas DD-0327-0001
Food Service Management MC-1729-0008
Freight Transportation and Traffic Management NV-0419-0008
Group VIII E-6/E-7 Management NV-1408-0006
Group VIII E8/E9 Advanced Management NV-1408-0006
Human Resource Management Instructor NV-1512-0006
Human Resource Management Specialist NV-1512-0005
IBM System 360 (OS) Data Management MC-1402-0039
IBM System 360 OS System Control and Data Management MC-1402-0038
Industry Financial Management DD-1408-0003
Information Security Management DD-1728-0002
Intermediate Transportation Management NV-0419-0010
Introduction to Traffic and Terminal Management NV-0419-0014
Introduction to Transportation Management NV-0419-0006
Joint Aviation Supply and Maintenance Material Management NV-1405-0009
Junior Officer Leadership and Management CG-1717-0003
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs) CG-1717-0003
Leadership and Management for Officers (LMT) NV-1717-0013
Leadership and Management for Petty Officers (LMT) NV-1717-0013
Management Analysis, Class C NV-1115-0002
Management Analysis, Class O NV-1115-0002
Management and Supervision of Naval Personnel

NV-1408-0007
Management Engineering NV-1406-0012
Management of Marine Corps Clubs NV-0902-0001
Management of Navy OPEN messes NV-1729-0009
Management of officers and Petty Officers' Messes NV-1729-0009
Marine Air Traffic Control Unit Maintenance Management, Class C NV-1715-0166
Marine Corps Integrated Maintenance Management (Officer) MC-1402-0028
Marine Terminal Management NV-0419-0012
National Security Management (Correspondence Course of the Industrial College of the Armed Forces) DD-1511-0001
Naval Aircraft Maintenance Management NV-1717-0011
Naval Aviation Maintenance/Material Management, Class B NV-1717-0003
Navy Advanced Management NV-0326-0001
Navy Exchange Management NV-1408-0023
Navy Schools Management NV-0326-0002
Operating Room Technic and Management NV-0703-0002
Personal Property Traffic Management NV-0419-0011
Personnelman, Class C, Naval Management Analysis NV-1408-0016
Program Management DD-1408-0002
Program Management for Contract Administration DD-1408-0004
Program Management for Functional Managers DD-1408-0004
Recreation Management NV-0902-0002
Reserve Officer, Chief Leadership and Management CG-1717-0004
Reserve Petty Officer Leadership and Management CG-1717-0002
Senior Petty Officer Leadership and Management CG-1717-0001
Station Management Systems NV-1408-0004
Supervision and Management, Class C NV-1406-0011
Transportation Management NV-0419-0008
Transportation Management Advanced NV-0419-0009
Warehouse Operations Management NV-1717-0007

Map
AN/ASM-398 Projected Map Display Set (PMDS) Intermediate Maintenance NV-1715-0529
AN/ASN-99 Projected Map Display Set Intermediate Maintenance NV-1715-0162
Map Compilation DD-1713-0001

Mapping
Mapping, Charting, and Geodesy Officer DD-1601-0007

Mardan
Mardan Computer Theory and Maintenance I NV-1715-0447
Mardan Computer Theory and Maintenance II NV-1715-0448
Mardan/Verdan Computer Theory NV-1715-0657

Marine
Class A Marine Science Technician CG-1304-0001
Enginemen, Class C, Marine Gas Turbine Basic NV-1710-0066
Management of Marine Corps Clubs NV-0902-0001
Marine Aircraft Launch and Recovery Equipment, Class A NV-1710-0061
Marine Air Traffic Control Navigational Aids Maintenance NV-1715-0037
Marine Air Traffic Control Navigational Aids Repairman, Class C NV-1715-0037
Marine Air Traffic Control Unit Equipment Maintenance, Class C NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class C NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class O NV-1715-0039
Marine Air Traffic Control Unit Radar Maintenance, Class C NV-1715-0038
Marine Air Traffic Control Unit Radar Repairman, Class C NV-1715-0038
Marine Assembler Language Programming MC-1402-0040
Marine Aviation Operations Clerical, Class C NV-1409-0008
Marine Aviation Supply, Class C NV-1405-0008
Marine Aviation Supply (Manual), Class C NV-1409-0005
Marine Aviation Supply (Mechanized), Class C NV-1405-0007
Marine Enlisted Basic Combat Intelligence NV-1606-0005
Marine Environmental Protection CG-1304-0012
Marine Environment and Systems Officer, Class C CG-1304-0010
Marine Environment and Systems Petty Officer (Class C) CG-1304-0011
Marine Gas Turbine Basic, Class C1 NV-1710-0066
Marine Mechanical School, Class P NV-1704-0131
Marine Safety Basic Indoctrination CG-0802-0002
Marine Science Technician CG-1304-0001
Marine Science Technician by Correspondence CG-1304-0003
Marine Terminal Management NV-0419-0012
Marine Warrant Officer, Basic MC-2204-0004
Merchant Marine Safety CG-0802-0002

Mark 10/IFF
Class C Mark 10/IFF Maintenance and Repair CG-1715-0050

Mark IV
Advanced Mark IV MC-1402-0027
Advanced Mark IV File Management System MC-1402-0027

Masonry
BU"C" Masonry NV-1710-0038

Master
Master Diver Qualification NV-1606-0016

Material
Electronics Technician, Class C, Electronics Material Officer NV-1715-0007
Prospective Electronics Material Officer—Pacific Fleet, Class C2 NV-1715-0816

MATS
Maintenance Analysis Test Set (MATS) Mk 352, Class F1 NV-1715-0902

Maxillofacial
Dental Technician, Maxillofacial Prosthetic NV-0701-0001
Dental Technician, Maxillofacial Prosthetic, Class C NV-0701-0001

Measurement
A-7 AN/ASN-90 Inertial Measurement Set Intermediate Maintenance NV-1715-0388
AN/ASN-90 Inertial Measurement Set Intermediate Maintenance NV-1715-0388
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1 NV-1715-0908

Mechanic
Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership MC-1703-0012
Aviation Structural Mechanic, Second Class, by Correspondence CG-1704-0013
Construction Mechanic, Class A1

(CM"A")
NV-1710-0035

Mechanical
Aviation Mechanical Fundamentals, Class A
NV-1704-0157
Aviation Mechanical Fundamentals, Class P
NV-1704-0157
Aviation Support Equipment Technician, Class A (Mechanical Speciality)
NV-1704-0113
Gyrocompass Technician Mechanical, Class C1
NV-1721-0008
Marine Mechanical Fundamentals
MC-1704-0003
Marine Mechanical School, Class P
NV-1704-0131
UNREP Hydraulic and Mechanical Component Maintenance (Sending Units)
NV-1710-0016

Mechanics
P-3 Second Mechanics Systems
NV-1704-0053

Medical
Aerospace Medical Technician, Class C
NV-0709-0003
Emergency Medical Technician
CG-0709-0002
Field Medical Service Officer
NV-0709-0015
Field Medical Service Technician
NV-0709-0015
Medical Administrative Technic
NV-1408-0021
Medical Administrative Technic, Dental
NV-1408-0021
Medical Administrative Technician, Class C
NV-1408-0021
Medical Administrative Technician (Dental), Class C
NV-1408-0021
Medical Deep Sea Diving Technic
NV-1606-0014
Medical Deep Sea Diving Technician
NV-1606-0014
Medical Department Diving Officers
NV-1606-0017
Medical Illustration Technic
NV-0202-0001
Medical Illustration Technician, Class C
NV-0202-0001
Medical Laboratory Technician Advanced
NV-0702-0003
Medical Officer Indoctrination
NV-2202-0004
Medical Photography Technic
NV-1709-0016
Medical Photography Technician, Class C
NV-1709-0016
Medical Services Technic
NV-0709-0008
Medical Services Technician, Class C
NV-0709-0008
Medical Technologist Technician, Class C
NV-0702-0002
Medical Technology
NV-0702-0002
Medical Technology Technician, Class C
NV-0702-0002
Submarine Medical Officer (Candidates)
NV-0705-0001

Medicine
Aviation Medicine Technic
NV-0709-0003
Aviation Medicine Technician, Class C
NV-0709-0003
Clinical Nuclear Medicine Technician
NV-0705-0002
Clinical Nuclear Medicine Technique
NV-0705-0002
Nuclear Medicine Technic
NV-0705-0004
Nuclear Medicine Technician
NV-0705-0004
Nuclear Submarine Medicine Technic
NV-0709-0001
Nuclear Submarine Medicine Technician, Class C
NV-0709-0001
Preventive Medicine Technic
NV-0707-0001
Preventive Medicine Technician, Class C
NV-0707-0001
Submarine Medicine Technic
NV-0709-0001
Submarine Medicine Technician, Class C
NV-0709-0001

Memory
A-6 Memory Drum Test Console, AN/ASM-316 (XN-1) and Card and Module Tester Intermediate Maintenance
NV-1715-0071
Read Only Memory (ROM) Encoder Elevator Control Maintenance, Class C1
NV-1715-0392

MEOC
Microwave Equipment Operator (MEOC)
MC-1715-0024

Mess
Advanced Special Mess Training
MC-1729-0007
Commissioned Officers' Mess Closed Mess Management
NV-1729-0008
Special Mess Leadership Training
MC-1729-0019
Special Mess Training
MC-1729-0018
Special Mess Training Leadership
MC-1729-0016

Message
DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1
NV-1715-0869

Messes
Management of officers and Petty Officers' Messes
NV-1729-0009

Metabolism
Electrocardiography and Basal Metabolism Technic
NV-0709-0010
Electrocardiography and Basal Metabolism Technician, Class C
NV-0709-0010

Metals
Heat Treatment of Metals, Class C
NV-1724-0001
Nondestructive Testing of Metals
NV-1724-0002

Metalsmith
Metalsmith Foreman
MC-1723-0003
Shipfitters, Class A (Metalsmith)
NV-1723-0006

Metalworker
Basic Metalworker
MC-1723-0005

Metalworkers
Metalworkers
MC-1723-0002

Meteorological
Meteorological Equipment Maintenance, Class C
NV-1721-0009
Meteorological/Oceanographic Equipment Maintenance, Class C
NV-1715-0564
Meteorological Satellite, Class C
NV-1304-0006

Meteorology
Meteorology by Correspondence
CG-1304-0008

Methods
Methods Engineering
NV-1408-0018

Metrical
Metrical Photographic Interpretation
NV-1709-0014

MFCS
DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5
NV-2202-0073
Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0
NV-1715-0072
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0
NV-1715-0681
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7
NV-1715-0805
Terrier Weapons System Missile Fire Control System (MFCS) Mk 73
NV-1715-0442
Terrier Weapons System Missile Fire Control System (MFCS) Mk 76
NV-1715-0443

MH-67
E1B MH-67 Automatic Flight Control System Intermediate Maintenance
NV-1704-0034
S-2D/E MH-67 Auto Pilot System Maintenance, No. 7
NV-1715-0472

Microminiature
Microminiature Component Repair Intermediate Maintenance
NV-1715-0157

Microwave
Electronics Technician, Class C, Microwave Fundamentals
NV-1715-0186
Microwave Equipment Operator (MEOC)
MC-1715-0024

Mid-Band
AN/ALQ-86 Mid-Band Tuner Intermediate Maintenance
NV-1715-0060

Military
Basic Military Journalist

DD-0504-0001
Military Justice (Lawyer)
NV-1728-0016
Military Justice Non-Lawyer
NV-1728-0015
Military Justice (Officers)
NV-1728-0017

Millworker
BU"C" Millworker
NV-1736-0001

Mine
Mine Detection Sonar Technical Maintenance
NV-1715-0740
Mine Hunting Sonar Familiarization (Reserve)
NV-2202-0098
Mine Warfare Engineman Basic
NV-1703-0005
Mine Warfare Packard Diesel Engineman (Class C)
NV-1712-0012
Mine Warfare Waukesha Diesel Engineman, Class C
NV-1712-0004

Miniature
Miniature Component Repair
NV-1715-0156
Miniature Electronic Repair Program, Class F-1
NV-1715-0815
Miniature/Microminiature Electronic Repair (2M)
NV-1715-0815

Minor
Advanced Minor Aids to Navigation, Class C
CG-1715-0046
Basic Minor Aids To Navigation
CG-1715-0042

MIP
Sonar AN/SQS-23 D-G Series TRAM, MIP, LORA Maintenance
NV-1715-0864

Missile
Asroc Missile Assembly and Maintenance
NV-1715-0630
Basic Point Defense Surface Missile System
NV-1715-0778
DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5
NV-2202-0073
Electronic Hovering and Missile Compensation
NV-1715-0934
F-4B Airborne Missile Control System AERO 1-A Organizational Maintenance
NV-1715-0362
F-4B/J Armament, Missile and Weapons Control System Maintenance
NV-1715-0632
F-4B/J Armament, Missile and Weapons Control System Organizational Maintenance
NV-1715-0632
F-4J AN/AWG-10 Antenna Control and Missile Control Intermediate Maintenance
NV-1715-0611
F-4J AN/AWG-10 Missile Control Display and Built-In Test (BIT) Intermediate Maintenance
NV-1715-0706
F-4J AN/AWG-10 Missile Control System (Enlisted) Familiarization
NV-1704-0231
Fleet Ballistic Missile (FBM) Navigation Officer
NV-1715-0456
Guided Missile Fire Control Repair
MC-1715-0079
Missile Launcher Mk 17 Mod 1 Advanced Training, Class C1
NV-1715-0910
Missile Launcher Mk 21 Mod 2 Theory and Operation
NV-1715-0575
Missile Technician, Class B
NV-1715-0712
Missile Technician, Class C (1), Polaris
NV-1715-0574
Missile Technician Mk 84 Polaris (A-3)
NV-1715-0607
Missile Technician Polaris
NV-1715-0574
Missile Technician Polaris, 598/608 Class
NV-1715-0574
Missile Technician Polaris Conversion
NV-1715-0880
Missile Technician Poseidon Logistics
NV-1715-0470
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training
NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1
NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1
NV-1715-0884
MTC1 Polaris Missile Technician Maintenance, Class C
NV-1715-0574
Polaris A3 Missile Advanced Training
NV-1715-0909
Poseidon Missile Technician
NV-1715-0604
Poseidon Missile Technician Conversion (A-2/A-3 to C-3)
NV-1715-0576
Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore)
NV-1715-0702
SUBROC Missile Mk 28 Mod 0 Test Equipment Intermediate Maintenance
NV-1715-0795
SUBROC Missile Mk 28 Mod 1 Intermediate Maintenance
NV-1715-0794
Surface Missile Systems, Officer
NV-1715-0758
Talos Gunner's (Missile) Handling
NV-1715-0602
Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0
NV-1715-0072
Tartar Fire Control and Missile Officer
NV-1715-0703
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0
NV-1715-0681
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7
NV-1715-0805
Terrier Fire Control and Missile Officer
NV-1715-0328
Terrier Missile Launcher System Repair
MC-1715-0080
Terrier Missile Launcher System Repairman
MC-1715-0080
Terrier Weapons System Missile Fire Control System (MFCS) Mk 73
NV-1715-0442
Terrier Weapons System Missile Fire Control System (MFCS) Mk 76
NV-1715-0443
TOW Missile Maintenance
MC-1715-0075

Missileman
Class A Aviation Guided Missileman
NV-1715-0629
Class A Guided Missileman
NV-1715-0647
Class B Guided Missileman
NV-1715-0712

Mk 1
Alignment Group Mk 1 Mods 0 and 1, Class F-1
NV-1715-0891
Navigation Operational Checkout Console (NOCC) Mk 1 Mod 1 Advanced Maintenance
NV-1715-0128
Radar Signal Processing Equipment (RSPE) Maintenance Mk 1 and Mods
NV-1715-0403

Mk 10
Mk 9 and Mk 10 5"/38 Caliber Twin Gun Mount Power Drive Maintenance
NV-1715-0654

Mk 100
Terrier Computer Mk 100 Mod 2
NV-1715-0398

Mk 101
Mk 101 Mods 17 Through 20 Fire Control System (FCS) Maintenance, Class C1
NV-1715-0803

Mk 106
Advanced Fire Control System (FCS) Mk 106 Mod 5
NV-1715-0384

Mk 108
Gunner's Mate Class C Rocket Launcher Mk 108
NV-1715-0618

Mk 11
Data Systems Technician, Class C, Mk 11, Mod 2/4 Systems Group Maintenance
NV-1715-0048

Mk 111
Talos Computer Mk 111 Mod 1
NV-1715-0634
Talos Computer Mk 111 Mod 1, Class C
NV-1715-0419
Underwater Fire Control Group Mk 111 Maintenance
NV-1715-0119

Mk 112
Mk 112 Mod 2 Fire Control System (FCS) Maintenance, Class C1
NV-1715-0890

Mk 113
Fire Control System (FCS) Mk 113 Mod

9 Target Motion Analysis (TMA) Operator/Familiarization NV-2202-0099
Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis) NV-1715-0412
Mk 113 Mod 7 Fire Control System (FCS) Maintenance NV-1715-0760
Underwater Fire Control System (FCS) Technician (Torpedoes) Mk 113 Mod 7 NV-1715-0760

Mk 114
Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9–12 NV-1715-0389
Underwater Fire Control Group Mk 114 Maintenance NV-1715-0133

Mk 118
Tartar Computer Mk 118 NV-1715-0343
Tartar Computer Mk 118 Mod 0 NV-1715-0343

Mk 14
Torpedoes Mk 14 Mod 5 and Mk 16 Mod 8 Intermediate Maintenance NV-1601-0011

Mk 148
Polaris Target Card Computer System Mk 148 Mod 0 Maintenance, Class F1 NV-1715-0893
Polaris Target Card Computer System Mk 148 Mod 0 Theory, Class C1 NV-1715-0894

Mk 152
Mk 152 Computer and Peripheral Equipment/Common Core NV-1715-0586
Mk 152 Computer Common Core NV-1715-0136
Tartar Mk 152 Computer Complex NV-1715-0792

Mk 16
ASROC Launching Group Mk 16 NV-1715-0770

Mk 17
Missile Launcher Mk 17 Mod 1 Advanced Training, Class C1 NV-1715-0910

MK 1A
Computer MK 1A Maintenance NV-1715-0086

Mk 2
Electronics Technician, Class C, SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician NV-1715-0130
Mk 2 Mod 1 Ships Inertial Navigation System (SINS) Maintenance NV-1402-0039
Ships Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance I NV-1715-0921
Ships Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II NV-1715-0922
Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1 NV-1715-0916
Ships Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I NV-1715-0919 NV-1715-0920
SINS Mk 2 Mod 6 Calibration NV-1715-0202
SINS Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance NV-1715-0916
SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 3 Mod 1 NV-1715-0427
Talos Weapon Direction System Mk 6 (WDE Mk 2) Class C NV-1715-0259

Mk 21
Launcher Mk 21 Mod 2 Advanced Training, Class F1 NV-1715-0917
Missile Launcher Mk 21 Mod 2 Theory and Operation NV-1715-0575

Mk 25
Gun Fire Control Radar Mk 25 Mod 3 Maintenance NV-1715-0127
Radar Mk 25 Mod 3 Maintenance NV-1715-0129

MK 27
MK 27 Gyrocompass Maintenance, Class C NV-1715-0762

Mk 28
Shipboard Decoy System (CHAFFROC) Launcher Operation and Maintenance Mk 28 Mod 1–5 NV-1715-0684
SUBROC Missile Mk 28 Mod 0 Test Equipment Intermediate Maintenance NV-1715-0795
SUBROC Missile Mk 28 Mod 1 Intermediate Maintenance NV-1715-0794

Mk 3
Guidance System, Mk 3 Mod 0, Operation and Maintenance NV-1715-0245
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1 NV-1715-0906
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884
Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance NV-1715-0426
Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance (Enlisted) NV-1715-0426
Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Operations (Enlisted) NV-1715-0339
SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 3 Mod 1 NV-1715-0427
SSN Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance NV-1715-0426
Terrier Weapon Direction System Mk 3 (DE Mk 9) NV-1715-0649

Mk 309
Control Panel Mk 309 Mod 0 Operation and Maintenance NV-1715-0381

Mk 32
Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance NV-1715-0785

Mk 35
3'/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35) NV-1715-0655
Mk 35 Power Drive Maintenance for 3'/50 Caliber Rapid Fire Gun Mount NV-1715-0147

Mk 352
Maintenance Analysis Test Set (MATS) Mk 352, Class F1 NV-1715-0902

Mk 37
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 NV-1715-0355
Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5 NV-1715-0221
Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar) NV-1715-0210
Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0728
Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1 NV-1715-0221
Torpedo Mk 37 Mods 0, 1, 2, and 3 Organizational Maintenance NV-1715-0787
Torpedo Mk 37 Mods 0, 2, and 3 Intermediate Maintenance NV-1715-0789
Torpedo Mk 37 Mods 0, 2, and 3 Test Equipment Intermediate Maintenance NV-1715-0788

Mk 4
Tartar Weapon Direction Systems (WDS) Mk 4 Mod 0, Class C NV-1715-0437
Tartar Weapon Direction System (WDS) Mk 4, Class C NV-1715-0436

Mk 42
5'/54 Gun Mount Mk 42 Mod 7/9 Differences NV-1715-0180
5'/54 Mount Rapid Fire Mk 42 Mod 7 Operation and Maintenance NV-1715-0668
Gun Maintenance 5'/54 Caliber Rapid Fire Mk 42 NV-1715-0179
Gun Mount 5"/54 Mk 42 Mod 9 and 10, Class C1 NV-2202-0104

Mk 44
- Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance NV-1715-0785

Mk 45
- Torpedo Mk 45 Mods 1 and 2 Test Equipment Intermediate Maintenance NV-1715-0786

Mk 46
- Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance NV-1715-0785

Mk 47
- Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance NV-1715-0271

Mk 474
- Tartar Radar Test Set Mk 474 Mod 2 NV-1715-0396

Mk 5
- Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5 NV-1715-0221
- Fire Control Technician Class C, Gun Fire Control System Mk 56 and Target Designation System Mk 5 NV-1715-0216
- Fire Control Technician Class C, Target Designation System (TDS) Mk 5 NV-1715-0212
- Gun Fire Control System (GFCS) Mk 37/TDS Mk 5 Maintenance, Class C1 NV-1715-0221
- Target Designation System Mk 5 Maintenance NV-1715-0264
- Target Designation System Mk 5 Shipboard Maintenance NV-1715-0315

MK-52
- Gun Fire Control Systems MK-52 and MK-56 CG-1715-0016

Mk 56
- Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 56 NV-1715-0218
- Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0728
- Gun Fire Control System (GFCS) Mk 56 Maintenance NV-1715-0207
- Gun Fire Control Systems MK-52 and MK-56 CG-1715-0016
- Mk 56 Gun Fire Control System (GFCS) Maintenance, Class C1 NV-1715-0218

Mk 6
- Fire Control Technician Class C, Target Designation System Mk 6 NV-1715-0213
- Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT), Class C NV-1715-0344
- Talos Weapon Direction System Mk 6 (WDE Mk 2) Class C NV-1715-0259

Mk 60
- Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9–12 NV-1715-0389

Mk 63
- Gun Fire Control System (GFCS) Mk 63 Maintenance NV-2202-0028

Mk 68
- Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 68 NV-1715-0219
- Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0728
- Gun Fire Control System (GFCS) Mk 68 Mod 4 Maintenance NV-1715-0208
- Mk 68 Director and Computer Mk 47 Mods 8 and 11 Difference Maintenance NV-1715-0271
- Mk 68 Gun Director and AN/SPG-53F Radar Maintenance NV-1715-0239

Mk-7
- Catapult, Arresting Gear, and Visual Landing Aids (C-7/C-11 Catapults and Mk-7 Arresting Gear), Class C NV-1710-0005
- Terrier Weapon Direction System Mk 7 (WDE Mk 8) NV-1715-0473
- Weapons Direction System (WDS) Mk 7 Mod 3 (6-Year Obligor) NV-1715-0414
- Weapons Direction System (WDS) Mk 7 Mod 3 (Career) NV-1715-0413

Mk 73
- Tartar Radar Set AN/SPG-51C and Director Mk 73 Mod 1 NV-1715-0512
- Terrier Weapons System Missile Fire Control System (MFCS) Mk 73 NV-1715-0442

Mk 74
- Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0072
- Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0681
- Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7 NV-1715-0805

Mk 76
- Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 NV-1715-0443
- Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS) NV-1715-0658

Mk 77
- Talos Weapons System Mk 77 Mod 2 (Class C) NV-1715-0444

Mk 8
- Terrier Weapon Direction System Mk 7 (WDE Mk 8) NV-1715-0473

Mk 80
- Controls and Indicators, Fire Control System (FCS) Mk 80, Class F1 NV-1715-0892
- Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1 NV-1715-0895
- Fire Control System (FCS) Technician Mk 80 NV-1715-0211
- Fire Control System Technician Mk 80 Replacement NV-1715-0211
- Mk 80 Weapons Officer NV-1715-0606

Mk 84
- Missile Technician Mk 84 Polaris (A-3) NV-1715-0607
- Mk 84 Fire Control System Technician NV-1715-0535
- SSBN Mk 84 Polaris Weapons Officer NV-1715-0577

Mk 88
- Fire Control System (FCS) Mk 88 Mod 1 Digital Control Computer NV-1715-0353
- Fire Control System Technician Mk 88 Conversion (Mod 0 to Mod 1) NV-1715-0203
- Fire Control System Technician Mk 88 Mod 1 Tender Maintenance NV-1715-0205
- Fire Control Technician Mk 88 Replacement NV-1715-0341
- Launcher Technician MK 88 Fire Control Conversion NV-1715-0623
- Mk 88 Mod 1 Fire Control Technician Conversion (Mk 80 & 84 to Mk 88) NV-1715-0585

Mk 9
- Mk 9 and Mk 10 5"/38 Caliber Twin Gun Mount Power Drive Maintenance NV-1715-0654
- Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT), Class C NV-1715-0344
- Terrier Weapon Direction System Mk 3 (DE Mk 9) NV-1715-0649

Mk NC-2
- Mk NC-2 Plotter Mod 0 Maintenance, Class C NV-1715-0082
- Mk NC-2 Plotter Mod 2/2A Maintenance, Class C NV-1715-0076
- Mk NC-2 Plotter Mod IA (Sperry) Maintenance, Class C NV-1715-0075

Mk V
- Mk V Atmosphere Analyzers NV-1715-0551

Mk XI
- Data Systems Technician, Class C, Weapon Direction System Mk XI Mod 0/1 Maintenance Training NV-1715-0385

Mk XII
- AIMS Mk XII IFF System Maintenance

(Electronics Technician, Class C1) NV-1715-0812
AIMS Mk XII System Differences Equipment Maintenance, Class C-1 NV-1715-0813
Mk XII IFF Systems, Class C NV-1715-0033

Mobile
Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance NV-1715-0541
Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698
Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance NV-1715-0700
Mobile Communication Central Technician MC-1715-0006
Mobile Communications Central Technician (AN/TGC-37(v)) MC-1715-0006
Mobile Data Central Technician MC-1715-0085
Mobile Data Communications Terminal Technician MC-1715-0081
Mobile Dial Central Technician MC-1715-0085
Mobile Riverine Force Staff Officer Training NV-2202-0048

Model 28
Model 28 ASR Teletype Maintenance NV-1715-0662

Modular
Naval Modular Automated Communications System (NAVMACS) A Maintenance NV-1715-0875

Module
A-6A Track Radar and Module Analyzer Test Console Intermediate Maintenance NV-1715-0429
A-6 Track Radar Module Analyzer Test Console and Detailed Module Theory (Intermediate Level Maintenance) NV-1715-0429
LM2500 Gas Turbine Module Maintenance, Class C1 NV-1703-0008

Molders
Molders, Class B NV-1723-0003
NV-1723-0012

Monitor
AN/FPN-46 Monitor/Timer CG-1715-0009
E-2A AN/ASM-33A In-Flight Performance Monitor Maintenance NV-1715-0471

Monitoring
Atmosphere Analyzer, CAMS (Central Atmosphere Monitoring System) Mk 1 NV-1715-0496

Morse
Intermediate Morse Code Operator, Class C NV-1404-0002
International Morse Code Operator NV-1404-0002

Mortarman
Mortarman MC-2204-0047

Motion
Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization NV-2202-0099
Motion Picture Cameraman NV-1709-0009
Motion Picture Projection System Maintenance, Class C NV-1715-0660
Motion Picture School, Class C NV-1709-0009

Motor
Advanced Motor Transport MC-1703-0002
Electric Motor Rewind, Class C NV-1714-0016
Motor Transport Chief MC-1703-0003
Motor Transport Maintenance Management MC-0419-0002
Motor Transport Officer MC-0419-0003
Motor Transport Officer Leadership MC-0419-0004
Motor Transport Officer Orientation MC-0419-0004
Motor Transport Staff Noncommissioned Officer (NCO) Leadership MC-1703-0016
Motor Vehicle Operator MC-2101-0001
Motor Vehicle Operators MC-2101-0001
Outboard Motors, Motor Maintenance and Overhaul, Class C CG-1731-0001

Motorola
CCI-611 and Motorola Triton VHF-FM Transceivers CG-1715-0057

Mount
3"/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35) NV-1715-0655

Mountain
Mountain Leadership Training, Summer MC-2204-0007
Mountain Leadership Training, Winter MC-2204-0006
Mountain Operations (Military Skiing) MC-0803-0004
Mountain Operations (Rock Climbing) MC-0803-0005

MTC1
MTC1 Polaris Missile Technician Maintenance, Class C NV-1715-0574

MTDS
Marine Tactical Data System (MTDS) Technician MC-1715-0043
Marine Tactical Data System (MTDS) Weapons Controller/Operator MC-1715-0021
Marine Tactical Data Systems (MTDS) Fundamentals MC-1715-0017

MTRE
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1 NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884

Multichannel
Electronics Technician, Class C, AN/FGC-60; AN/FTA-15 Multichannel Voice Frequency Telegraph Terminal Equipment NV-1715-0194

Multicoupler
Antenna Multicoupler AN/BRA-16 Combined Maintenance NV-1715-0161
Antenna Series (CU-1441/BRR Multicoupler) NV-1715-0132

Multilith
Multilith 1250 Repair DD-1706-0001

Multimeter
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884

Multipurpose
Light Airborne Multipurpose System (LAMPS) Operator NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Sensor Operator NV-2202-0034
Light Airborne Multipurpose System (LAMPS) Tactics NV-2202-0035

Music
Field Music MC-1205-0001
Music Advanced, Class C-7 NV-1205-0002
Music, Class A, Basic NV-1205-0001
Music, Class B, Advanced NV-1205-0002
Music, Class C, Refresher NV-1205-0003
Music Intermediate, Class C NV-1205-0003
Music Intermediate, Class C-1 NV-1205-0003
Naval School of Music, Class A, Basic NV-1205-0001
Naval School of Music, Class B, Advanced NV-1205-0002
Naval School of Music, Class C, Refresher NV-1205-0003

Narrowband
Bullseye Narrowband Maintenance Technician

NV-1715-0819
- Cryptologic Technician M, Bullseye Narrowband Maintenance NV-1715-0819

NASAP
- Navy Alcohol Safety Action Program (NASAP) NV-0799-0002

National
- National Boating Safety CG-0802-0004
- National Cryptologic School Resident Language Courses DD-0602-0011
- National Security Management (Correspondence Course of the Industrial College of the Armed Forces) DD-1511-0001
- National War College DD-1511-0002
- Reserve Components National Security Seminar DD-1511-0006

Naval
- College of Naval Command and Staff NV-1511-0003
- College of Naval Warfare NV-1511-0002
- Defense Economics and Decision Making Self-Administered Seminar (Naval War College) NV-1511-0008
- Naval Gunfire Officer MC-2204-0039
- Naval Preparatory School NV-2202-0007
- Naval War College Correspondence Course in Defense Economics and Decision Making NV-1511-0005
- Naval War College Correspondence Course in Strategy and Policy NV-1511-0004
- Naval Warfare Course NV-1511-0002
- School of Naval Command and Staff NV-1511-0003
- School of Naval Warfare NV-1511-0002
- Strategy and Policy Self-Administered Seminar (Naval War College) NV-1511-0009

NAVDAC
- Naval Data Automated Computer (NAVDAC) Advanced Training NV-1715-0926
- SSBN NAVDAC Mk 2 Mod 4, SDC Mk 2 Mod 1 NV-1715-0242

Navigation
- A-4E Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0452
- A-4F/L/TA-4F Communication Navigation Identification (CNI)/Weapons Systems Organizational Maintenance NV-1715-0383
- A-4 Tactical Air Navigation (TACAN) AN/ARN-52(V) NV-1715-0288
- A-6A AN/ASN-31 Inertial Navigation Organizational Level Maintenance NV-1715-0476
- A-6A AN/ASQ-57 Communication, Navigation, Identification (CNI) System and AN/AIC-14 Intercommunications System Intermediate Maintenance NV-1715-0370
- A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance NV-1715-0475
- A-6 AN/ASQ-57 Communication, Navigation, Identification (CNI) System, AN/AIC-14 Intercommunication System Intermediate Maintenance NV-1715-0370
- A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance NV-1715-0200
- Advanced Minor Aids to Navigation, Class C CG-1715-0046
- Advanced Navigation Training (Postgraduate Coast Guard Aviator) NV-1606-0033
- Advanced Navigation Training (Postgraduate Naval Aviator) NV-1606-0032
- Advanced Navigation Training (Student Naval Flight Officer) NV-1606-0031
- Aerial Navigation MC-1606-0002
- Aids to Navigation Construction CG-1722-0004
- Aids to Navigation Mechanician CG-1715-0015
- Aids to Navigation Officer Advanced CG-2205-0008
- Aids to Navigation Officer Basic CG-2205-0009
- Aids to Navigation School (Short Course for Officers) CG-2205-0003
- Air Navigation MC-1606-0002
- AN/APN-122 Doppler Navigation System Maintenance NV-1715-0483
- AN/APN-130 Radar Navigation Set Intermediate Maintenance NV-1715-0553
- AN/APN-153(V) Doppler Radar Navigation System Intermediate Maintenance NV-1715-0507
- AN/APN-175 Doppler Radar, Navigation CG-1715-0027
- AN/APN-180 Loran A Navigation System Class C CG-1715-0028
- AN/ARN-21D TACAN Navigation Set Maintenance NV-1715-0487
- AN/AYN-1 Navigation Computer Systems Class C CG-1715-0024
- AN/SPN-40 Radio Navigation Set (Electronics Technician, Class C1) NV-1715-0015
- AN/SRN-18 Radio Satellite Navigation Set Maintenance, Class C-1 NV-1715-0810
- AN/SRN-9A, Radio Navigation Set, Operation and Maintenance NV-1715-0441
- AN/SRN-9 Satellite Radio Navigation Set Maintenance (Electronics Technician, Class C1) NV-1715-0099
- Automated Aids-to-Navigation Electronics Maintenance CG-1715-0041
- Aviation Electronics Technician N (Navigation), Class A NV-1715-0097
- Basic Jet Navigation, Class O NV-1606-0023
- Basic Minor Aids To Navigation CG-1715-0042
- Basic Navigation Watchstander NV-1715-0125
- Celestial Navigation by Correspondence CG-1304-0004
- Central Navigation Computer (Input/Output) NV-1402-0026
- Central Navigation Computer (Processor I) NV-1402-0025
- Central Navigation Computer (Processor II) NV-1402-0024
- CH-53 Communication, Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0101
- E-2A Inertial Navigation System AN/ASN-36 Maintenance NV-1715-0709
- E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance NV-1715-0323
- EA-6B Communications, Navigation and Radar System Organizational Maintenance NV-1715-0311
- Electronics Technician, Class C, AN/SRN-9 Radio Navigation Set NV-1715-0099
- Electronics Technician, Class C, FBM Tender Navigation Maintenance NV-1715-0182
- Electronics Technician, Class C, SSBN NAVDAC FBM Tender Navigation Maintenance NV-1715-0168
- Electronics Technician, Class C, SSBN Navigation Aids, FBM Tender Navigation Maintenance NV-1715-0064
- Electronics Technician, Class C, SSBN Navigation Aids Technician Maintenance NV-1715-0063
- Electronics Technician, Class C, SSBN Ships Inertial Navigation, FBM Tender Navigation Maintenance NV-1715-0065
- Electronics Technician, Class C, SSBN Ships Inertial Navigation System Mk 2 Mod 0-6 Technician NV-1715-0066
- Electronics Technician, Class C, SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician NV-1715-0130
- Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance NV-1715-0014

F-14A Communications, Navigation/Displays, Electronic Warfare Organizational Maintenance Technician NV-1704-0217

F-4B Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1704-0076

F-4B Communication Navigation Identification (CWI) Organizational Maintenance NV-1715-0255

F-4J Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1704-0074

F-4J Communication Navigation Identification (CNI) Organizational Maintenance NV-1715-0612

F-8 Communication Navigation and Identification (CNI) Systems Organizational Maintenance NV-1715-0688

Fleet Ballistic Missile (FBM) Navigation Officer NV-1715-0456

Minor Aids to Navigation CG-2205-0002

Mk 2 Mod 1 Ships Inertial Navigation System (SINS) Maintenance NV-1402-0039

Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance NV-1715-0426

Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance (Enlisted) NV-1715-0426

Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Operations (Enlisted) NV-1715-0339

Navigation Flight Training, Naval Aviator and Naval Flight Officer NV-1606-0045

Navigation Flight Training, Pilot and Naval Aviation Officer (Navigator) NV-1606-0045

Navigation Operational Checkout Console (NOCC) Mk 1 Mod 1 Advanced Maintenance NV-1715-0128

Navigation Rules by Correspondence CG-1708-0005

Navigation Set Operation and Maintenance NV-1715-0913

Navigation Technician SSN 668 Class NV-1715-0881

Officers Advanced Aids to Navigation CG-2205-0008

Officers Basic Aids to Navigation CG-2205-0009

Officers Basic Aids to Navigation, Class O CG-2205-0009

P-3A/B Communications Navigation (COMM/NAV) Organizational Maintenance NV-1715-0096

Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1 NV-1715-0915

Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1 NV-1715-0911

Prospective Advanced Navigation Flight Instructor NV-1606-0038

RA-5C Communication Navigation Identification (CNI) and DECM Organizational Maintenance NV-1704-0075

Radio Navigation Set AN/BRN-3/3A Computer Advanced Training NV-1715-0925

RF-4B AN/ASN-46/56 Navigational Computer and Inertial Navigation System Intermediate Maintenance NV-1715-0228

RF-4B AN/ASN-46/74 Navigation Computer and Inertial Navigation System Intermediate Maintenance NV-1715-0465

RF-4B AN/ASQ-88 and AN/ASQ-108 Communication Navigation Identification (CNI) Line Troubleshooting Maintenance NV-1715-0357

RF-4B Inertial Navigation System Intermediate Maintenance NV-1715-0465

RF-4B Inertial Navigation System Organizational Maintenance NV-1715-0614

RT-736 and KY-531 TACAN (Tactical Air Navigation) Intermediate Maintenance NV-1715-0796

S-2D/E AN/APN-122 Doppler Radar Navigation System Maintenance NV-1715-0422

Satellite Navigation System AN/WRN-5 NV-1715-0913

SH-3A AN/APN-130 Doppler Radar Navigation Maintenance NV-1715-0237

SH-3A AN/ASA-13A Navigation System Mantenance NV-1715-0241

SH-3A/D Automatic Navigation System (AN/AYK-2) Intermediate Maintenance NV-1715-0227

SH-3 AN/ASA-13A Navigation System Intermediate Maintenance NV-1715-0241

SH-3 AN/AYK-2 Navigation System Intermediate Maintenance NV-1715-0227

Ships Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance I NV-1715-0921

Ships Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II NV-1715-0922

Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Control Theory NV-1715-0232

Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1 NV-1715-0916

Ships Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I NV-1715-0919 NV-1715-0920

SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 2 Mod 1 NV-1715-0242 NV-1715-0427

SSBN Navigation Officer NV-1606-0026

SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 4 Technician NV-1715-0440

SSN Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance NV-1715-0426

UH-2A AN/APN-130 Radar Navigation Equipment NV-1715-0432

UH-2A/B Tactical Air Navigation (TACAN) AN/ARN-52(V) NV-1715-0761

Navigational

AN/APN-182(V) Radar Navigational Set Intermediate Maintenance NV-1715-0583

AN/ASA-13A Navigational Computer Group Intermediate Maintenance NV-1715-0326

AN/ASA-47 Doppler/Airmass Navigational Computer System Intermediate Maintenance NV-1715-0582

CH-46A AN/ALQ-52(V) Navigational TACAN Maintenance MC-1715-0071

EKA-3B AN/ASN-66B Navigational Computer Set Intermediate Maintenance NV-1715-0505

Marine Air Traffic Control Navigational Aids Maintenance NV-1715-0037

Marine Air Traffic Control Navigational Aids Repairman, Class C NV-1715-0037

Navigational Technician Watchstander (Enlisted) NV-1715-0125

P-3 AN/ASN-42 Navigational Computer Set Intermediate Level Maintenance, No. 16 NV-1715-0327

P-3 AN/ASN-42 Navigational Computer Set Intermediate Maintenance NV-1715-0327

P-3 AN/ASN-42 Navigational Computer Set Organizational Level Maintenance, No. 15 NV-1715-0324

S-2D/E AN/ARN-52(V) Navigational TACAN Maintenance NV-1715-0637

S-2D/E AN/ASN-30 Navigational Computer Display Unit and AN/ASQ-80 Coordinate Data Set System Maintenance. NV-1715-0331

SH-3A AN/ASA-13A Navigational Computer Maintenance NV-1715-0333

UH-2A/B AN/ASA-13A Navigational Computer Group Intermediate Maintenance NV-1715-0326

Navigator

A-6 Bombardier Navigator Control Box and Associated Test Set, Intermediate Maintenance NV-1715-0051

Bombardier Navigator NV-1606-0036

Fleet Replacement Radar Navigator NV-1606-0036

Navigation Flight Training, Pilot and Naval Aviation Officer (Navigator)
NV-1606-0045

NAVMACS

Naval Modular Automated Communications System (NAVMACS) A Maintenance
NV-1715-0875

Navy

Navy Advanced Management
NV-0326-0001

Navy Schools Management
NV-0326-0002

NBC

NBC Defense for Petty Officers
NV-1728-0009

Nuclear, Biological and Chemical (NBC) Defense Ashore
NV-0801-0005

Nuclear, Biological and Chemical (NBC) Defense for Petty Officers
NV-0801-0004

Nuclear, Biological and Chemical (NBC) Defense (Shipboard)
NV-0801-0001

Nuclear, Biological and Chemical (NBC) Warfare Defense
MC-0801-0001

Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore
NV-0801-0005

Nuclear, Biological, and Chemical (NBC) Weapons Employment
MC-2204-0036

NC-10B

Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance
NV-1715-0698

NC-2A

Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance
NV-1715-0700

NCO

Advanced Automotive Mechanic/ Maintenance Noncommissioned Officer (NCO) Leadership
MC-1703-0012

Bakery Noncommissioned Officer (NCO) Leadership
MC-1729-0006

Food Service Noncommissioned Officer (NCO) Leadership
MC-1729-0005

Food Service Staff Noncommissioned Officer (NCO) Leadership
MC-1729-0004

Motor Transport Staff Noncommissioned Officer (NCO) Leadership
MC-1703-0016

Noncommissioned Officer (NCO) Leadership (Junior)
MC-2204-0016

Noncommissioned Officers (NCO) Leadership (Senior)
MC-2204-0015

Staff Noncommissioned Officers (NCO) Resident Course
MC-1408-0014

Supply Noncommissioned Officer (NCO) Leadership
MC-1405-0006

Topography and Printing Staff Noncommissioned Officer (NCO)
DD-1601-0010

Warehousing NCO Leadership
MC-1405-0002

Warehousing Noncommissioned Officer (NCO) Leadership
MC-1405-0002

Warehousing Staff Noncommissioned Officer (NCO) Leadership
MC-1405-0013

Woman Marine Noncommissioned Officer (NCO) Leadership
MC-2204-0018

NESEP

Naval Enlisted Scientific Education Program (NESEP)
NV-2202-0101

NESEP Basic
NV-2202-0101

Neuropsychiatric

Neuropsychiatric Clerical Technic
NV-1403-0001

Neuropsychiatry

Neuropsychiatry Technic
NV-0703-0003

Neuropsychiatry Technician, Class C
NV-0703-0003

Newspaper

Newspaper Editor
DD-0504-0003

NOCC

Navigation Operational Checkout Console (NOCC) Mk 1 Mod 1 Advanced Maintenance
NV-1715-0128

Noise

Noise and Vibration Measurement
NV-1721-0003

Noise Measurement and Reduction
NV-1721-0002

Sound Analysis, Noise and Vibration Reduction (Enlisted)
NV-1721-0010

Nonacoustic

Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P3C
NV-1715-0696

Electronic Warfare for Nonacoustic Operator, P3A/B(D)
NV-1715-0020

Nonacoustic Antisubmarine Operator Transition P3C
NV-1715-0679

Nonacoustic Operator Transition
NV-1715-0679

RADAR/MAD for Nonacoustic Operator P3A/B (D)
NV-1715-0678

Noncommissioned

Advanced Automotive Mechanic/ Maintenance Noncommissioned Officer (NCO) Leadership
MC-1703-0012

Bakery Noncommissioned Officer (NCO) Leadership
MC-1729-0006

Food Service Noncommissioned Officer (NCO) Leadership
MC-1729-0005

Motor Transport Staff Noncommissioned Officer (NCO) Leadership
MC-1703-0016

Noncommissioned Officer (NCO) Leadership (Junior)
MC-2204-0016

Noncommissioned Officers (NCO) Leadership (Senior)
MC-2204-0015

Staff Noncommissioned Officers (NCO) Resident Course
MC-1408-0014

Supply Noncommissioned Officer (NCO) Leadership
MC-1405-0006

Warehousing Noncommissioned Officer (NCO) Leadership
MC-1405-0002

Warehousing Staff Noncommissioned Officer (NCO) Leadership
MC-1405-0013

Woman Marine Noncommissioned Officer (NCO) Leadership
MC-2204-0018

Noncommissioned Officer

Food Service Staff Noncommissioned Officer (NCO) Leadership
MC-1729-0004

Nondestructive

Aircraft Maintenance Nondestructive Inspection School, Class C
NV-1704-0156

Nondestructive Testing of Metals
NV-1724-0002

Non-Lawyer

Military Justice Non-Lawyer
NV-1728-0015

Non-Morse

Cryptologic Technician T, Field Operations Type One, Class A3, Special Non-Morse
NV-1715-0838

Non-Photographic

Special Photographic Course for Non-Photographic Personnel, Class C
NV-1709-0005

NOP

Marine NOP (Nuclear Weapons Training for Nuclear Ordnance Platoon Personnel)
NV-2202-0100

Norden

CONALOG Maintenance Norden (Enlisted)
NV-1715-0252

CONALOG (Norden) Refresher Maintenance and Troubleshooting
NV-1715-0253

Norwegian

Norwegian
DD-0602-0001
DD-0602-0002

Nose

Eye, Ear, Nose and Throat Technician, Class C
NV-0709-0009

NP-II

Advanced Naval Parachutist, NP-II Class C
NV-0803-0002

NTDS

Basic Naval Tactical Data System (NTDS) Air Intercept Controller
NV-1715-0674

DD963 Naval Tactical Data System (NTDS) Data Utilization
NV-1402-0023

DD963 Naval Tactical Data Systems (NTDS) Data Input
NV-1402-0010

Naval Tactical Data System (NTDS) Basic Programmer (Operational) NV-1402-0002
Naval Tactical Data System (NTDS)—Data Input—Basic NV-1715-0673
Naval Tactical Data System (NTDS)—Data Utilization—Basic NV-1402-0005
Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C NV-1402-0032
Naval Tactical Data System (NTDS) Tracker/Supervisor NV-1715-0673
Naval Tactical Data Systems (NTDS)—Data Collection and Display (Basic Enlisted) NV-1402-0003
Naval Tactical Data Systems (NTDS) Data Utilization NV-1402-0006
Naval Tactical Data Systems (NTDS) Evaluator/Supervisor NV-1402-0006
Naval Tactical Data Systems (NTDS) Intermediate Programmer Course (CS-1) NV-1402-0004
NTDS Data Utilization NV-1402-0005
Programming, Naval Tactical Data System (NTDS) Operational (Officer and Enlisted) NV-1402-0031

Nuclear
Advanced Nuclear Power NV-1732-0003
Basic Nuclear Power NV-1732-0002
Clinical Nuclear Medicine Technician NV-0705-0002
Clinical Nuclear Medicine Technique NV-0705-0002
CVS/MAUW Shop Nuclear Weapons Technical NV-0802-0005
Electronics Technician Communications—Nuclear Field, Class A1 NV-1715-0853
Electronics Technician Radar—Nuclear Field, Class A1 NV-1715-0856
Marine NOP (Nuclear Weapons Training for Nuclear Ordnance Platoon Personnel) NV-2202-0100
Navy Nuclear Weapons Advanced Maintenance NV-2202-0086
Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician) NV-1715-0171
Nuclear and Chemical Weapons Employment MC-2204-0036
Nuclear, Biological and Chemical (NBC) Defense Ashore NV-0801-0005
Nuclear, Biological and Chemical (NBC) Defense for Petty Officers NV-0801-0004
Nuclear, Biological and Chemical (NBC) Defense (Shipboard) NV-0801-0001
Nuclear, Biological and Chemical (NBC) Warfare Defense MC-0801-0001
Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore NV-0801-0005
Nuclear, Biological, and Chemical (NBC) Weapons Employment MC-2204-0036
Nuclear Medicine Technic NV-0705-0004
Nuclear Medicine Technician NV-0705-0004
Nuclear Power Plant Components Welder, Class C NV-1710-0069
Nuclear Submarine Medicine Technic NV-0709-0001
Nuclear Submarine Medicine Technician, Class C NV-0709-0001
Nuclear Weapons Disposal NV-0802-0007
Nuclear Weapons Disposal Advanced Refresher NV-0802-0002
Nuclear Weapons Employment MC-2204-0036
Nuclear Weapons Technical (CVA) NV-0802-0006
Welding for Nuclear Power Plant Operators, Course V NV-1710-0046

Nurse
Nurse Corps Indoctrination NV-2202-0003
OB/GYN Nurse Clinician NV-0703-0001
OB/GYN Nurse Practitioner NV-0703-0001

OA-1768A/ASA-13
P-3 PT-396/AS and OA-1768A/ASA-13 Plotter Group Intermediate Maintenance NV-1715-0117

OA-3731
OA-3731/ASM-76 Computer Detector Test Console Intermediate Maintenance NV-1715-0798

OA-3731/ASM-76
E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance NV-1715-0349

OA-3734/ASM-77
OA-3734/ASM-77 Ballistic Computer Test Console Intermediate Maintenance NV-1715-0548

OA-3738/ASA-48
E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance NV-1715-0348

OA-6672
A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance NV-1715-0109

OA-8206/ASA-27A
E-2B OA-8206/ASA-27A Difference Organizational Maintenance NV-1715-0508

OB/GYN
OB/GYN Nurse Clinician NV-0703-0001
OB/GYN Nurse Practitioner NV-0703-0001

Obligor
Weapons Direction System (WDS) Mk 7 Mod 3 (6-Year Obligor) NV-1715-0414

Observation
8th Class Air Observation School MC-1606-0003
Air Observation MC-1606-0001

Observer
Aerial Observer MC-1704-0005
Air Observer MC-1704-0005
Artillery Scout Observer MC-2204-0032
Ice Observer by Correspondence CG-1304-0006
Ice Observer, Class C NV-2202-0070
Naval Aviation Observer (Controller), Class O NV-1704-0197
Tactical Aerial Observer MC-1704-0005

Occupational
Occupational Therapy Technic NV-0704-0003
Occupational Therapy Technician, Class C NV-0704-0003
Physical and Occupational Therapy Technic NV-0704-0002
Physical and Occupational Therapy Technician, Class C NV-0704-0002
Physical and Occupational Therapy Technician, Phases I and II NV-0704-0002

Ocean
Air-Ocean Environment Course, Class C NV-1304-0002
Introduction to Ocean Engineering NV-1304-0001

Oceanographic
Oceanographic Technician CG-1304-0002

Oceanography
Oceanography by Correspondence CG-1304-0005

OCR
Optical Character Recognition (OCR) Operations MC-1402-0012
Programming for Optical Character Recognition (OCR) System MC-1402-0016

Ocular
Ocular Technician NV-0706-0003

OE-82B/WSC-1(V)
AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group NV-1715-0876

Office
Advanced Office Machine Repair, Class C NV-1706-0003
Typing and General Office Procedures

(Women)
MC-1409-0001

Officer
Advanced Automotive Mechanic/Maintenance Noncommissioned Officer (NCO) Leadership
MC-1703-0012
Officer Candidate
MC-2204-0050
Officer Candidate School
CG-2205-0004
MC-2204-0050
NV-2202-0102
Officer Direct Support Operations, Class C4
NV-1715-0832
Prospective Officer of the Deck
NV-1722-0008
Reserve Officer Candidate (ROC II and ROC I)
NV-2202-0103
Women Officer Candidate School
NV-2202-0093

Offset
Offset Duplicating Equipment Operator
DD-1719-0004
Offset Printing
DD-1719-0002

Oil
Class C Field Oil Identification Laboratory
CG-1601-0001

Omega
Electronics Technician, AN/SRN-14, Omega Receiver Maintenance, Class C
NV-1715-0590
Electronics Technician, Class C, AN/SRN-12 Omega Receiving Set Maintenance
NV-1715-0201

ONTOS
ONTOS (M50)(Fourth and Fifth Echelon) Maintenance
MC-1703-0004
ONTOS Vehicle Repairman
MC-1703-0005
Tracked Vehicle Repairman (ONTOS), Basic
MC-1703-0005

Operating
Disk Operating System Programming
MC-1402-0004
IBM System 360 Disk Operating System (DOS) Operations
MC-1402-0018
IBM System 360 Operating System (OS) Operations
MC-1402-0023
Operating Room Technic
NV-0703-0004
Operating Room Technic and Management
NV-0703-0002
Operating Room Technician, Class C
NV-0703-0004
Operating System Programming
MC-1402-0004
System 360 Operating System—COBOL Programming Phase
MC-1402-0007
System 360 Operating System—Core Phase
MC-1402-0005
System 360 Operating System—Operations Phase
MC-1402-0006

Operations
Advanced Operations Techniques
MC-1402-0022
Air Support Operations Operator
MC-1715-0031
Cryptologic Technician Technical Field Operations, Type One
NV-1715-0838
Cryptologic Technician Technical Field Operations Type Three
NV-1715-0840
Cryptologic Technician T, Field Operations Type One, Class A3, Special Non-Morse
NV-1715-0838
Cryptologic Technician T, Field Operations Type Three, Class A3, AN/FLR-11/15 Operations
NV-1715-0840
IBM System 360 (OS) Advanced Operations Techniques
MC-1402-0022
Naval Security Group Direct Support Operations
NV-1715-0832
Officer Direct Support Operations, Class C4
NV-1715-0832
Operations Officer Electronic Counter-Countermeasures (ECCM)
MC-1715-0067
Operations Specialist, Class A1
NV-1606-0060
Reserve Training Officer Direct Support Operations, Class F1
NV-1715-0834
Special Operations Technic
NV-0709-0005
Special Operations Technician
NV-0709-0005
Tactical Air Operations Central Technician
MC-1715-0082

Optical
Optical Character Recognition (OCR) Operations
MC-1402-0012
Optical Instrument Repairman
MC-1721-0001
Optical Instrument Repairman (Advanced)
MC-1721-0004
Optical Instrument Repairman (Basic)
MC-1721-0002
Optical Landing Systems Maintenance, Class C
NV-1715-0609
Optical Survey Instrument Repair
DD-1721-0001
Programming for Optical Character Recognition (OCR) System
MC-1402-0016

Opticalmen
Opticalmen, Class A
NV-1721-0007

Optician
Optician (General) Technician, Class C
NV-0706-0001
Optician Laboratory Technician, Class C
NV-0706-0002
Optician Technician, Class C
NV-0706-0002
Optician Technic Laboratory
NV-0706-0002

Ordnance
Aviation Ordnance Officers, Class O
NV-1715-0744
Aviation Ordnance Officers (Management), Class O (AOM(0))
NV-1405-0010
CVA/CVS Air Launched Weapons General Ordnance
NV-2202-0024
Explosive Ordnance Disposal Navy Basic
NV-2202-0020
Explosive Ordnance Disposal—Reserve Officer Training
NV-2202-0019
Marine NOP (Nuclear Weapons Training for Nuclear Ordnance Platoon Personnel)
NV-2202-0100
Ordnance Chief
MC-1405-0009
Ordnance Equipment, Class C
CG-1715-0013
Ordnance Handling Equipment Intermediate Maintenance
NV-1710-0026
Ordnance Officer
MC-1408-0003
Ordnance Officer/Chiefs
MC-1408-0003
P-3 Ordnance Systems Organizational Maintenance
NV-1704-0160
Surface Explosive Ordnance Disposal Basic
NV-2202-0017
Surface Explosive Ordnance Disposal (EOD) Advanced Refresher
NV-0802-0003
UDT-SEAL Explosive Ordnance Disposal Indoctrination
NV-2202-0018

Ordnanceman
Aviation Ordnanceman, Class A
NV-1715-0648
Aviation Ordnanceman, Class B
NV-1717-0010
Aviation Ordnanceman (Turret), Class A
NV-1714-0007
Aviation Ordnanceman (Utility), Class A
NV-1714-0006

Orientation
Officer Candidate School (Seamanship, Orientation, Operations & Military Indoctrination)
CG-2202-0001
Reserve Cryptologic Technician Naval Security Group Orientation
NV-1715-0823

Orthopedic
Orthopedic Appliance Mechanic
NV-0704-0001
Orthopedic Appliance Technic
NV-0704-0001
Orthopedic Appliance Technician, Class C
NV-0704-0001

OS
IBM System 360 Operating System (OS) Operations
MC-1402-0023
IBM System 360 (OS) Advanced Coding
MC-1402-0037
IBM System 360 (OS) Advanced Operations Techniques
MC-1402-0022
IBM System 360 (OS) Advanced

Programming Techniques) MC-1402-0024
IBM System 360 OS Assembler Language MC-1402-0031
IBM System 360 OS COBOL Language (Entry-level) MC-1402-0029
IBM System 360 (OS) COBOL Programming MC-1402-0013 MC-1402-0036
IBM System 360 (OS) Data Management MC-1402-0039
IBM System 360 OS FORTRAN IV Language (Entry-level) MC-1402-0043
IBM System 360 OS FORTRAN Programming MC-1402-0034
IBM System 360 OS PL/1 Programming MC-1402-0035
IBM System 360 OS Programming MC-1402-0030
IBM System 360 OS System Control MC-1402-0033
IBM System 360 OS System Control and Data Management MC-1402-0038
IBM System 360 (OS) Systems Programmer MC-1402-0041
IBM System 360 OS Systems Programming MC-1402-0032

Otolaryngology
Otolaryngology Technician NV-0709-0009

Outboard
Outboard Engines Operation and Maintenance. CG-1731-0001
Outboard Motors, Motor Maintenance and Overhaul, Class C CG-1731-0001

OV-10A
OV-10A Electrical Systems Organizational Maintenance NV-1704-0095
OV-10A Flight Control and Hydraulic Systems Organizational Maintenance NV-1704-0103
OV-10A T76-G-10/12 Engine Intermediate/Complete Engine Repair Maintenance NV-1704-0137

Overseas
High Impact Personnel Overseas Duty Training NV-1512-0002
Intercultural Relations—Overseas Duty Training NV-1512-0002

Oxygen
6L16 Oxygen Generator Electrical Technician NV-1715-0918
6L16 Oxygen Generator Technician NV-1601-0009
Electrolytic Oxygen Generator 7L16 NV-1601-0002
Electrolytic Oxygen Generator Operators NV-1601-0008
Oxygen Equipment (Class C) NV-1601-0007
Oxygen Generator Electrical Model 6L16 (Enlisted) NV-1715-0560
Oxygen Generator (Mechanical) NV-1601-0005
Oxygen Generator Mechanical Model 6L16 (Enlisted) NV-1601-0006

P-3
2F69D P-3 Weapon System Follow-on-Training NV-2202-0078
2F87 P-3 Weapon System Follow-on-Training NV-2202-0079
Fundamental Analysis Techniques (P-3) NV-1715-0275
P-3 Air Conditioning, Pressurization and Utilities Organizational Maintenance NV-1701-0001
P-3 Aircraft Familiarization, No. 2 NV-1704-0039
P-3 Aircraft Familiarization (Pilots) NV-1704-0039
P-3 AN/APA-125A Indicator Intermediate Maintenance NV-1715-0172
P-3 AN/APA-125A Indicator Maintenance, No. 48 NV-1715-0172
P-3 AN/APN-70 Loran System Intermediate Maintenance NV-1715-0112
P-3 AN/APS-80 Search Radar System Maintenance, 49 NV-1715-0695
P-3 AN/APX-6 Radar Identification System Intermediate Maintenance NV-1715-0118
P-3 AN/APX-7 Radar Recognition System Intermediate Maintenance NV-1715-0511
P-3 AN/AQA-1 Sono Indicator System Intermediate Maintenance NV-1715-0120
P-3 AN/AQA-5 Sonar Data Recording System Maintenance, No. 46 NV-1715-0121
P-3 AN/ARC-51A Communication Systems Maintenance, No. 22 NV-1715-0710
P-3 AN/ARC-52 UHF Communications Systems Maintenance, No. 21 NV-1715-0346
P-3 AN/ARC-94 Communications System Maintenance, No. 19 NV-1715-0374
P-3 AN/ARN-52 TACAN Maintenance, No. 30 NV-1715-0262
P-3 AN/ASA-16 Display System Intermediate Maintenance NV-1715-0463
P-3 AN/ASA-16 Indicator Group Organizational Maintenance NV-1715-0115
P-3 AN/ASN-42 Navigational Computer Set Intermediate Level Maintenance, No. 16 NV-1715-0327
P-3 AN/ASN-42 Navigational Computer Set Intermediate Maintenance NV-1715-0327
P-3 AN/ASN-42 Navigational Computer Set Organizational Level Maintenance, No. 15 NV-1715-0324
P-3 AN/ASQ-10A Magnetic Anomaly Detecting Systems Maintenance, No. 42 NV-1715-0178
P-3 Anti-Submarine Warfare (ASW) Systems Organizational Maintenance NV-1715-0268
P-3 ASA-16 System Maintenance, No. 50 NV-1715-0477
P-3 Communication/Navigation Organizational Maintenance NV-1715-0739
P-3 Electrical System Maintenance, No. 12 NV-1704-0073
P-3 Electrical System Organizational Maintenance NV-1704-0073
P-3 Electrical Systems Intermediate Maintenance NV-1704-0072
P-3 Flight Engineers Operational Maintenance, No. 5 NV-1704-0067
P-3 Flight Engineer System, No. 6 NV-1704-0048
P-3 Hydraulics and Flight Controls System Maintenance, No. 10 NV-1704-0050
P-3 Hydraulics, Flight Control Systems and Structures Organizational Maintenance NV-1704-0161
P-3 Integrated Electrical System Organizational Maintenance NV-1704-0101
P-3 Ordnance Systems Organizational Maintenance NV-1704-0160
P-3 PB20N Automatic Flight Control System Maintenance, No. 13 NV-1715-0600
P-3 PB-20N Autopilot System Intermediate Maintenance NV-1715-0462
P-3 Power Generating System and AVQ-2 Searchlight Intermediate Maintenance NV-1715-0659
P-3 PT-396/AS and OA-1768A/ASA-13 Plotter Group Intermediate Maintenance NV-1715-0117
P-3 Radar and IFF Systems Organizational Maintenance NV-1715-0114
P-3 Second Mechanics Systems NV-1704-0053
P-3 Structures, Hydraulic Power and Flight Controls Organizational Maintenance NV-1704-0206
P-3 Synchrophaser/True Airspeed Computer/Signal Lights Control Intermediate Maintenance NV-1715-0322
P-3 T56-A-10/14 Engine and Related Systems Organizational Maintenance NV-1704-0019
P-3 T56-A-10W Engine and Related Systems Maintenance, No. 56 NV-1704-0017
P-3 T56-A-14 Engine and Related Systems Maintenance NV-1704-0019

P3A/B
DIFAR Training for Acoustic Operators P3A/B(D) and P3C

NV-1715-0704

- Jezebel Gram Analysis for AW's P3A/B (DIFAR Retrofit) NV-1715-0704
- P-3A/B Communications Navigation (COMM/NAV) Organizational Maintenance NV-1715-0096
- P-3A/B Sensor Station One and Two (Acoustic System Technician) Organizational Maintenance NV-1715-0506

P3A/B(D)

- AASW for Second Tour Pilots, P3A/B(D) NV-2202-0032
- Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D) NV-1715-0555
- Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D) NV-2202-0032
- Electronic Warfare for Nonacoustic Operator, P3A/B(D) NV-1715-0020
- RADAR/MAD for Nonacoustic Operator P3A/B (D) NV-1715-0678

P3C

- Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P3C NV-1606-0028
- Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C NV-2202-0021
- Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P3C NV-1715-0696
- Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P3C NV-1715-0696
- First Tour Pilot P-3C Communications Operator NV-1704-0213
- Naval Flight Officer P3C Communications Operator NV-1704-0219
- Nonacoustic Antisubmarine Operator Transition P3C NV-1715-0679
- P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance NV-1715-0358
- P-3C Communication/Navigation Organizational Maintenance NV-1715-0533
- P-3C CP-901/ASQ-114 Computer Organizational Maintenance NV-1402-0040
- P-3C Digital Data Handling Organizational Maintenance NV-1715-0330
- P-3C Integrated Avionics System Technician NV-1715-0329
- P-3C Integrated Electrical Systems Organizational Maintenance NV-1704-0089
- P-3C Sensor Station One and Two (Acoustic Systems Technician) Organizational Maintenance NV-1715-0256
- P-3C Sensor Station Three (Radar/Displays) Integrated System Organizational Maintenance NV-1715-0640
- P-3C Sensor Station Three (Radar/Display Technician) Organizational Maintenance NV-1715-0640
- P3C Tactical Coordinator Positional Training for Naval Flight Officers NV-1606-0043

Packard

- Mine Warfare Packard Diesel Engineman (Class C) NV-1712-0012

PAIR

- Sonar AN/SQQ-23A (PAIR) Organizational Maintenance NV-1715-0859
- Sonar AN/SQQ-23 (PAIR) Operator Basic NV-1715-0860

Panel

- Control Panel Mk 309 Mod 0 Operation and Maintenance NV-1715-0381

Panoramic

- RA-5C Panoramic Camera Shop Maintenance NV-1715-0143

Parachute

- Parachute Rigger, Class A NV-1704-0234
- Parachute Rigger (Maintenance), Class A NV-1704-0234
- Parachute Rigger School, Class B NV-1717-0012
- Parachute Rigger (Survival), Class A NV-1733-0001

Parachutist

- Advanced Naval Parachutist, Class C1 NV-0803-0002
- Advanced Naval Parachutist, NP-II Class C NV-0803-0002
- Basic Naval Parachutist, Class C1 NV-2202-0030
- Basic Naval Parachutist Course, NP-1 Class C NV-2202-0030
- Jumpmaster Naval Parachutist, Class C1 NV-2202-0026
- Naval Parachutist, Advanced, Class C NV-0803-0002
- Naval Parachutist, Basic, Class C NV-2202-0030

Party

- Basic Shore Party Man MC-2204-0029
- Shore Party Basic Specialist MC-1710-0017

Passive

- Carrier Aviation Antisubmarine Warfare (AASW) Acoustic Operator (Passive) NV-2202-0096
- RA-5C AN/ALQ-61 Passive Electronics Countermeasures Organizational Maintenance NV-1715-0366

Patrol

- Coastal Patrol Craft Training NV-1722-0003
- Patrol Gunboat/PG/Engineering Systems Operator and Maintenance NV-1712-0018
- River Patrol Craft Training NV-1722-0010

Patternmaker

- Patternmaker, Class A NV-1723-0004

Pay

- Disbursing Clerk (Pay Records Maintenance) Class C NV-1401-0001

PB20N

- P-3 PB20N Automatic Flight Control System Maintenance, No. 13 NV-1715-0600
- P-3 PB-20N Autopilot System Intermediate Maintenance NV-1715-0462

Perforator

- Teletypewriter System (Afloat) Maintenance Models TT70A/UG and AN/UGC-5 TT-252 Typing Perforator NV-1715-0665

Peripheral

- Data Systems Technician, Class C, AN/UYK-5(V) Peripheral Maintenance NV-1715-0087
- Data Systems Technician—Peripheral Equipment Maintenance, Class C NV-1715-0047
- Mk 152 Computer and Peripheral Equipment/Common Core NV-1715-0586
- Polaris Target Card Computer System Peripheral Equipment, Class C1 NV-1715-0897

Persian

- Persian DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0004

Personal

- Personal Financial Records Clerk MC-1403-0003
- Personal Property Traffic Management NV-0419-0011

Personnel

- Administrative Chief's Personnel Administration MC-1406-0008
- Administrative Officers Personnel Administration MC-1408-0006
- Basic Personnel Administration MC-1406-0007
- First Sergeants Personnel Administration MC-1406-0005
- High Impact Personnel Overseas Duty Training NV-1512-0002
- Personnel Chief's Personnel Administration MC-1406-0008
- Personnel Clerk MC-1405-0003
- Personnel Men School, Class C-1, Enlisted Classification NV-1406-0015
- Sergeants Major Personnel Administration MC-1406-0004
- Warrant Officer Personnel Administration

MC-1406-0006
Woman Marine Officer's Personnel Administration MC-1408-0005

Personnelman
Personnelman, Class A NV-1409-0001
Personnelman, Class C-1, Interviewing and Classification NV-1406-0018
Personnelman, Class C (Career Information and Counseling) NV-1406-0004
Personnelman, Class C, Naval Management Analysis NV-1408-0016

Pest
Disease Vector and Pest Control Technology NV-0101-0001

Pharmacy
Pharmacy Technic NV-0799-0003
Pharmacy Technician, Class C NV-0799-0003

PHIBLANT
PHIBLANT Petty Officer Leadership NV-2202-0091

Photo
IOIC Photo Interpretation Officer NV-1709-0006
IOIC Photo Interpretation Operator NV-1709-0007
RA-5C Photo Reconnaissance Line Maintenance NV-1715-0748
RA-5C Photo Reconnaissance System Organizational Maintenance NV-1715-0748
RA-5C Photo Systems Electronics NV-1715-0543

Photogrammetric
Advanced Photogrammetric Cartographic Techniques DD-1601-0005
Basic Photogrammetric Cartographic Techniques DD-1601-0001
Photogrammetric Compilation DD-1601-0009

Photographer
Underwater Photographer/Scuba Diver NV-1606-0013

Photographer's
Advanced Photographer's Mate School (Class B) NV-1709-0003
Photographer's Mate A (Aerial Cameraman) NV-1709-0001
Photographer's Mate G (Cameraman) NV-1709-0001
Photographer's Mate School, Class A NV-1709-0001
Photographer's Mate School, Class A, Basic NV-1709-0001
Photographer's Mate School (Class B) NV-1709-0003

Photographic
IOIC Photographic Processing/Maintenance NV-1709-0008
IOIC Photographic Processing Officer NV-1709-0013
Metrical Photographic Interpretation NV-1709-0014
Photographic Electronics Systems, Class C NV-1715-0354
Photographic Equipment Maintenance NV-1715-0160
Photographic Equipment Repair, Class C NV-1715-0160
Photographic Intelligenceman (PT) NV-1606-0030
Photographic Interpretation/Radar Target Analysis NV-1606-0030
Photographic Laboratory Technician C1 NV-1709-0018
Photographic Officers (Class O) NV-1709-0002
Photographic Reconnaissance (Class O) NV-1709-0004
Photographic Reconnaissance Officers, Class O NV-1709-0004
RA-5C Photographic Electronics Fundamentals NV-1715-0152
RF-4B Photographic Film Correlator-Processor Set ES-55A Intermediate Maintenance NV-1715-0751
Special Photographic Course for Non-Photographic Personnel, Class C NV-1709-0005
Strategic Photographic Interpretation NV-1709-0012
Tactical Photographic Interpretation NV-1709-0011

Photography
Illustrative Photography C1 NV-1709-0017
Lithographic Photography DD-1719-0003
Medical Photography Technic NV-1709-0016
Medical Photography Technician, Class C NV-1709-0016
Still Documentary Photography C1 NV-1709-0010

Photojournalism
Intermediate Photojournalism DD-1709-0001

Physical
Physical and Occupational Therapy Technic NV-0704-0002
Physical and Occupational Therapy Technician, Class C NV-0704-0002
Physical and Occupational Therapy Technician, Phases I and II NV-0704-0002
Physical Therapy Technic NV-0704-0002
Physical Therapy Technician, Class C NV-0704-0002
Physical Training Instructor MC-0802-0001
Physical Training Instructor (Men) MC-0802-0001
Physical Training Instructor (Women) MC-1406-0002
Women Physical Training Instructor MC-1406-0002

Physiology
Aerospace Physiology Technician NV-0709-0004

Pilgrim
Clarinet Pilgrim CG-1715-0018

Pilot
A-3 S-5 Auto Pilot Maintenance NV-1704-0198
Advanced Phase, Pilot Training NV-1606-0050
ASW Tactics—First Tour VP Pilot NV-2202-0043
ASW Tactics—VS Pilot/Naval Flight Officer NV-2202-0042
Basic Phase, Pilot Training NV-1606-0049
E-1B Aircraft Pilot Training NV-1606-0053
E-2B Aircraft Pilot Training NV-1606-0054
First Tour Pilot P-3C Communications Operator NV-1704-0213
KC-130-F S-5 Automatic Pilot and Related Instruments Intermediate Maintenance NV-1715-0736
Navigation Flight Training, Pilot and Naval Aviation Officer (Navigator) NV-1606-0045
Primary Phase, Basic Pilot Training NV-1606-0048
RA-5C Aircraft Familiarization (Pilot/RAN) NV-1606-0022
S-2D/E MH-67 Auto Pilot System Maintenance, No. 7 NV-1715-0472
VP CRAG Pilot ASW Indoctrination, Equipments and Tactics NV-2202-0040
VP Pilot P3A/B NV-2202-0043
VS CRAG Pilot ASW Indoctrination, Equipments, and Tactics—S-2D Aircraft NV-2202-0043
VS CRAG Pilot ASW Indoctrination, Equipments, and Tactics—S-2E Aircraft NV-2202-0042

Piloting
Piloting by Correspondence CG-1708-0006

Pilots
A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance NV-1715-0297
AASW for Second Tour Pilots, P3A/B(D) NV-2202-0032
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots P3A/B/(D) NV-1715-0270
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D) NV-2202-0032
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C NV-2202-0021
C-2A Aircraft Familiarization (Pilots) NV-1704-0121

E-2A Aircraft Familiarization (Pilots) NV-1704-0054
P-3 Aircraft Familiarization (Pilots) NV-1704-0039
Pilots C-121 Simulator and Advanced Flight NV-1606-0034
Pilots C-121 Simulator and Basic Flight NV-1606-0035

Pipe
High Pressure Pipe Welders NV-1710-0051
Pipe Welders NV-1710-0050

Pipefitters
Shipfitters, Class A (Pipefitters) NV-1710-0041

PL/1
IBM System 360 OS PL/1 Programming MC-1402-0035

Plane
A-6 Plane Captain NV-1704-0118
RA-5C Plane Captains Organizational Maintenance NV-1717-0002
SP-2E Systems Familiarization, Plane Captains NV-1704-0107
SP-2H Systems Familiarization, Plane Captains NV-1704-0082

Planning
Amphibious Planning NV-2202-0031
Battalion Staff Officers (Amphibious Planning) NV-2202-0025
EA"C" Planning and Estimating NV-1408-0012
Engineering Aid, Class C, Planning and Estimating NV-1408-0012
Planning and Estimating Construction Group Ratings, Class C NV-1408-0012
Shore Facilities Planning NV-1408-0017

Plant
1200 PSI Steam Generating Plant Operator NV-1710-0075
Centrifugal Air Conditioning Plant Operation and Maintenance NV-1701-0006
Steam Generating Plant Inspector NV-1732-0001
Steam Plant Automatic Controls Maintenance (Bailey Meter) NV-1710-0074
Steam Plant Automatic Controls Maintenance (General Regulator) NV-1710-0072
Steam Plant Automatic Controls Maintenance (Hagan) NV-1710-0073

Plate
Plate Welders, Class C NV-1710-0044

Platemaking
Lithographic Stripping and Platemaking DD-1719-0001

Platoon
Platoon Leaders Class (Junior) MC-2204-0037
Platoon Leaders Class (Senior) MC-2204-0040
Platoon Leaders (Combined Junior/Senior) MC-2204-0050

Plotter
Mk NC-2 Plotter Mod 0 Maintenance, Class C NV-1715-0082
Mk NC-2 Plotter Mod 2/2A Maintenance, Class C NV-1715-0076
Mk NC-2 Plotter Mod 1A (Sperry) Maintenance, Class C NV-1715-0075
P-3 PT-396/AS and OA-1768A/ASA-13 Plotter Group Intermediate Maintenance NV-1715-0117

Plumbing
Basic Plumbing and Water Supply Man MC-1710-0013
Journeyman Plumbing and Water Supply Man MC-1710-0012
Plumbing and Water Supply Journeyman MC-1710-0012
Plumbing and Water Supply Man MC-1710-0013

PMDS
AN/ASM-398 Projected Map Display Set (PMDS) Intermediate Maintenance NV-1715-0529

Pneumatic
A7A/B Hydraulic and Pneumatic Systems Organizational Maintenance NV-1704-0190
A7A/B Structures, Hydraulics and Pneumatic Systems Maintenance NV-1704-0190
A-7E Hydraulic and Pneumatic Systems Organizational Maintenance NV-1704-0013

Point
Basic Point Defense Officer NV-1715-0570
Basic Point Defense Surface Missile System NV-1715-0778

Polaris
Missile Technician, Class C (1), Polaris NV-1715-0574
Missile Technician Mk 84 Polaris (A-3) NV-1715-0607
Missile Technician Polaris NV-1715-0574
Missile Technician Polaris, 598/608 Class NV-1715-0574
Missile Technician Polaris Conversion NV-1715-0880
MTC1 Polaris Missile Technician Maintenance, Class C NV-1715-0574
Polaris A3 Missile Advanced Training NV-1715-0909
Polaris Electronics, Class A NV-1715-0705
Polaris Loran 'C' Advanced Training NV-1715-0899
Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1 NV-1715-0915
Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1 NV-1715-0911
Polaris Target Card Computer System Mk 148 Mod 0 Maintenance, Class F1 NV-1715-0893
Polaris Target Card Computer System Mk 148 Mod 0 Theory, Class C1 NV-1715-0894
Polaris Target Card Computer System Peripheral Equipment, Class C1 NV-1715-0897
SSBN Command Weapons System Orientation—Polaris NV-1715-0573
SSBN Mk 84 Polaris Weapons Officer NV-1715-0577
SWS (Strategic Weapons System) Command Polaris NV-1715-0573
SWS (Strategic Weapons System) Weapons Officer Polaris NV-1715-0606

Policy
Naval War College Correspondence Course in Strategy and Policy NV-1511-0004
Strategy and Policy Off-Campus Graduate Seminar NV-1511-0007
Strategy and Policy Self-Administered Seminar (Naval War College) NV-1511-0009

Polish
Polish DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0006

Port
Port Security/Law Enforcement Enlisted CG-1728-0002
Port Security/Law Enforcement Officer CG-1728-0001
Port Security School CG-1728-0004

Portuguese
Portuguese DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0004
DD-0602-0009

Poseidon
Missile Technician Poseidon Logistics NV-1715-0470
Poseidon Missile Technician NV-1715-0604
Poseidon Missile Technician Conversion (A-2/A-3 to C-3) NV-1715-0576

Postal
Postal Clerk, Class A NV-1404-0001

Postgraduate
Advanced Navigation Training (Postgraduate Coast Guard Aviator) NV-1606-0033
Advanced Navigation Training (Postgraduate Naval Aviator) NV-1606-0032
Basic Course, Postgraduate MC-1408-0009
Postgraduate Intelligence Course DD-1511-0004

Power

60/400 Hz Power Converter Maintenance, Class C1 NV-1715-0301

A-4(J52-P-6A/8A) Power Plant and Related Systems Organizational Maintenance NV-1704-0170

A-6A Power Plants and Related Systems Organizational Level Maintenance NV-1704-0164

A-6/KA-6D Electrical Power Systems Intermediate Maintenance NV-1704-0097

A-7A/B Power Plant and Related Systems Organizational Maintenance NV-1704-0135

A-7A/B TF30-P-6/408 Power Plants and Related Systems Organizational Maintenance NV-1704-0135

Advanced Nuclear Power NV-1732-0003

AH-1J Power Plant and Related Systems Organizational Maintenance NV-1704-0162

Alternating Current Power Systems NV-1715-0490

Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance NV-1715-0541

Aviation Support Equipment NC-10B Mobile Electric Power Plant Systems Intermediate Maintenance NV-1715-0698

Aviation Support Equipment NC-2A Mobile Electric Power Plant Intermediate Maintenance NV-1715-0700

Basic Nuclear Power NV-1732-0002

C-2A Power Plant and Related Systems Organizational Maintenance NV-1704-0127

Construction Electrician—Power and Communications Cable Splicing NV-1714-0015

E-1B Power Plants and Related Systems Organizational Maintenance NV-1704-0227

E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance NV-1715-0746

E-2A Power Plant and Related Systems Maintenance No. 8 NV-1704-0152

E2A Power Plant and Related Systems Organizational Maintenance NV-1704-0151

EA-6B J-52-P-408 Power Plants and Related Systems Organizational Maintenance NV-1704-0222

Electric Hydraulic Power Drive for 5"/38 Caliber Dual Purpose Single Mount NV-2202-0075

Electrician's Mates, Class A, Part II Power and Lighting Equipment NV-1714-0012

Electronics Technician Class C, High Power Independent Single Sideband Transmitter (AN/FRT-39; AN/URT-19; AN/URA-30) NV-1715-0027

F-14A Power Plant and Related System Organizational Maintenance Technician (Crew Member) NV-1704-0212

F-4B/J Power Generating System Intermediate Maintenance NV-1704-0189

F-8 Power Plants and Related Systems NV-1704-0180

F/RF-4B/J / J79-GE-8/10 Power Plant Organizational Maintenance NV-1704-0188

F/RF-4B/J Power Plant and Related Systems Maintenance NV-1704-0182

F/RF-4B Power Generating System Maintenance NV-1715-0682

H-53 Power Plants and Related Systems Organizational Maintenance NV-1704-0168

Mk 35 Power Drive Maintenance for 3"/50 Caliber Rapid Fire Gun Mount NV-1715-0147

Mk 9 and Mk 10 5"/38 Caliber Twin Gun Mount Power Drive Maintenance NV-1715-0654

Nuclear Power Plant Components Welder, Class C NV-1710-0069

P-3 Power Generating System and AVQ-2 Searchlight Intermediate Maintenance NV-1715-0659

RA-5C Power Plants and Related Systems NV-1704-0045

RA-5C Power Plants and Related Systems Organizational Maintenance NV-1704-0045

S-2D/E Power Plant and Related Systems Maintenance NV-1704-0171

SH-3A/G Power Plants and Related Systems Organizational Level Maintenance NV-1704-0146

SH-3A Power Plants and Related Systems Maintenance NV-1704-0134 NV-1704-0144

SH-3D/H Power Plants and Related Systems Organizational Maintenance Course NV-1704-0139

SH/HH-2D Power Plant and Related Systems Organizational Maintenance NV-1704-0172

T2C Power Plants and Related Systems Maintenance NV-1704-0169

UH-1N Power Package Organizational Maintenance NV-1704-0204

UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems Maintenance NV-1704-0061

UH-2C, HH-2C and HH-2D Power Plants and Related Systems Organizational Maintenance NV-1704-0141

UH-2C Power Plants, Fuel, Transmissions and Related Systems Organizational Maintenance NV-1704-0176

Welding for Nuclear Power Plant Operators, Course V NV-1710-0046

Powerplant

A-7E Powerplant and Related Systems Organizational Maintenance NV-1704-0140

QH-50D Airframe, Powerplant and Related Systems Organizational Maintenance NV-1704-0052

Powertrain

AH-1J Powertrain and Rotors Organizational Maintenance NV-1704-0153

HH-52A Airframe and Powertrain, Class C CG-1704-0005

UH-1N Powertrain and Rotors Organizational Maintenance NV-1704-0175

Pre-flight

Pre-flight, Naval Aviation Cadets and Aviation Officer Candidates NV-1606-0046

Pre-flight, Officer NV-1606-0047

Preparation

Flight Preparation, Officer NV-1606-0047

Preparatory

Aviation Fleet Preparatory Course I and II NV-1606-0058

Aviation Fleet Preparatory Course I and II, Class P NV-1606-0051

Communications Technician T and R Basic Preparatory, Class A NV-1404-0004

Cryptologic Technician T, Class A3 Preparatory NV-1715-0837

Cryptologic Technician Technical Basic Preparatory, Class A NV-1715-0837

Naval Preparatory School NV-2202-0007

Preparedness

Staff Disaster Preparedness Officer NV-0801-0002

Pressure

Pressure Fired Boiler, Class C NV-1710-0003

Pressure Hull Welders NV-1710-0049

Submarine Low Pressure and Vapor Compression Distilling Units, Enlisted NV-1710-0025

Pressurization

P-3 Air Conditioning, Pressurization and Utilities Organizational Maintenance NV-1701-0001

Preventive

Preventive Medicine Technic NV-0707-0001

Preventive Medicine Technician, Class C NV-0707-0001

Radarman, Class A, Basic Preventive Maintenance and Operators NV-1715-0401

Primary

Primary Phase, Basic Pilot Training NV-1606-0048

Printing
Offset Printing DD-1719-0002
Topography and Printing Staff Noncommissioned Officer (NCO) DD-1601-0010

Prisoners
Interrogation of Prisoners of War MC-1728-0002

Processing
DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1 NV-1715-0869
DD-963 Facilities Control Quality Monitoring Processing Unit Operators NV-1715-0869
IOIC Photographic Processing/Maintenance NV-1709-0008
IOIC Photographic Processing Officer NV-1709-0013
Processing and Reporting NV-1715-0821 NV-1715-0822
Reserve Cryptologic Technician Processing and Reporting, Phase I NV-1715-0821
Reserve Cryptologic Technician Processing and Reporting, Phase II NV-1715-0822

Procurement
Recruit Procurement, Class C NV-1406-0010

Program
Program Management DD-1408-0002
Program Management for Contract Administration DD-1408-0004
Program Management for Functional Managers DD-1408-0004

Programmed
Programmed Instruction Techniques NV-1406-0006
Programmed Instruction Writer NV-1406-0006

Programmer
A6A Programmer, Semi-Automatic Test Equipment Intermediate Maintenance NV-1715-0074
E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance NV-1715-0348
IBM System 360 (OS) Systems Programmer MC-1402-0041
Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884
Naval Tactical Data System (NTDS) Basic Programmer (Operational) NV-1402-0002
Naval Tactical Data Systems (NTDS) Intermediate Programmer Course (CS-1) NV-1402-0004
RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance NV-1715-0238
RA-5C Semi-Automatic Test Equipment, Programmer, System Analyzer and Countermeasures Test Bench AN/ULM-1 Intermediate Maintenance NV-1715-0176
Storage and Retrieval DP Operator and Programmer NV-1402-0035

Programmers
Instructional Programmers (Class C) NV-1406-0005

Programming
Advanced Programming Techniques MC-1402-0024
AN/USQ-20 Basic Programming NV-1402-0002
AN/USQ-20 Machine Language Programming NV-1402-0019
AN/UYK-7 CMS-2 (Y) Compiler Language Programming NV-1402-0046
Basic Programming Concepts, Class C NV-1402-0021
Basic Programming Orientation for Middle Management NV-1402-0015
CMS-2 Compiler Language Programming NV-1402-0017
CMS-2 Programming (CP-642 A&B/USQ-20) NV-1402-0009
Computer Programming Orientation NV-1402-0014
Disk Operating System Programming MC-1402-0004
IBM System 360 Computer System Programming (COBOL Language), Class C NV-1402-0007
IBM System 360 (DOS) COBOL Programming MC-1402-0011
IBM System 360 (OS) Advanced Programming Techniques) MC-1402-0024
IBM System 360 (OS) COBOL Programming MC-1402-0013 MC-1402-0036
IBM System 360 OS FORTRAN Programming MC-1402-0034
IBM System 360 OS PL/1 Programming MC-1402-0035
IBM System 360 OS Programming MC-1402-0030
IBM System 360 OS Systems Programming MC-1402-0032
Marine Assembler Language Programming MC-1402-0040
Operating System Programming MC-1402-0004
Programming, Digital Computer CP-642A&B/USQ-20 (Machine Language and CS-1 Assembly Language) NV-1402-0033
Programming for Optical Character Recognition (OCR) System MC-1402-0016
Programming, Naval Tactical Data System (NTDS) Operational (Officer and Enlisted) NV-1402-0031
System 360 Operating System—1401 Programming MC-1402-0009
System 360 Operating System—Assembler Language Programming Phase MC-1402-0008
System 360 Operating System—COBOL Programming Phase MC-1402-0007
Systems Programming MC-1402-0015
UNIVAC 1218/418/490-CP-789/UYK-5(V) System Programming Course (COBOL Language), Class C NV-1402-0030

Projection
Motion Picture Projection System Maintenance, Class C NV-1715-0660

Prop
Basic Prop Flight Instructor NV-1606-0018
Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft) NV-1606-0020
Prospective Prop Flight Instructor NV-1606-0020
Prospective VA (Prop) Tactical Flight Instructor NV-1606-0040

Propeller
43D50 Propeller Maintenance Class C CG-1704-0002
C-131A Propeller Maintenance, Class C CG-1704-0012
Controllable Pitch Propeller, Class C NV-1704-0174
Engineman Class C, Controllable Pitch Propeller NV-1704-0174
Enginemen, Class C, LST 1179 Class Controllable Pitch Propeller and Propulsion Control System NV-1710-0023
KC-130F Propeller Intermediate Maintenance NV-1704-0193
LST 1179/1182 Class Controllable Pitch Propeller and Propulsion Control System, Class C1 NV-1710-0023
T56-A-8/8A Engine and A6441FN-248 Propeller NV-1704-0029
T56-A-8/8A Engine and Aeroproducts A6441FN-248 Propeller Intermediate Maintenance NV-1704-0029

Property
Personal Property Traffic Management NV-0419-0011

Propulsion
1200 PSI Main Propulsion Assistant NV-1710-0019
Automated Propulsion System Operator, Class C NV-1710-0056
Basic Propulsion Engineering, Class A NV-1715-0714
Enginemen, Class C, LST 1179 Class Controllable Pitch Propeller and Propulsion Control System NV-1710-0023

General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance CG-1710-0007
LST 1179/1182 Class Controllable Pitch Propeller and Propulsion Control System, Class C1 NV-1710-0023
LST 1182 Propulsion Technician, Class C1 NV-1703-0007
Propulsion Shaft Components NV-1710-0057

Prospective
1200 PSI Prospective Engineering Officer NV-1710-0022
Prospective Advanced Navigation Flight Instructor NV-1606-0038
Prospective ASW Flight Instructor (S-2 Type Aircraft) NV-1606-0020
Prospective Electronics Material Officer—Pacific Fleet, Class C2 NV-1715-0816
Prospective Engineering Officer Orientation NV-1710-0013
Prospective Engineer Officers NV-1717-0006
Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft) NV-1606-0020
Prospective Officer of the Deck NV-1722-0008
Prospective Phase I CV (Jet) (TF/AF-9J) Tactical Flight Instructor NV-1606-0037
Prospective Phase II CV (Jet) (F11A) Tactical Flight Instructor NV-1606-0041
Prospective Prop Flight Instructor NV-1606-0020
Prospective TA-4J Flight Instructor NV-1606-0021
Prospective TF/TAF-9J Flight Instructor NV-1606-0039
Prospective VA (Prop) Tactical Flight Instructor NV-1606-0040

Prosthetic
Dental Prosthetic Technician School, Class C NV-0701-0007
Dental Technician, Advanced Prosthetic, Class B NV-0701-0003
Dental Technician, Maxillofacial Prosthetic NV-0701-0001
Dental Technician, Maxillofacial Prosthetic, Class C NV-0701-0001
Dental Technician, Prosthetic, Advanced, Class B NV-0701-0003
Dental Technician, Prosthetic, Class C NV-0701-0007

PT-396/AS
P-3 PT-396/AS and OA-1768A/ASA-13 Plotter Group Intermediate Maintenance NV-1715-0117

Public
Civil Engineer Corps Officer Basic—Public Works Management Specialty NV-1408-0014
Public Information Enlisted DD-0504-0008
Public Information Officer DD-0504-0007

PUFS
Sonar Receiving Set AN/BQG-4/4A (PUFS) Combined Maintenance NV-1715-0261
Sonar Receiving Set AN/BQG PUFS Maintenance NV-1715-0261

Pulse
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance NV-1715-0797

Pump
General Pump Maintenance NV-1710-0070

Purchase
Navy Purchase NV-1405-0005

QH-50C
QH-50C Airframe and Related Systems Intermediate Maintenance NV-1704-0051
QH-50C Target Control System AN/SRW-4B Intermediate Maintenance NV-1715-0418
QH-50C Weapons System Intermediate Electronics Maintenance NV-1715-0568

QH-50D
QH-50D Airframe and Related System Intermediate Maintenance NV-1704-0052
QH-50D Airframe, Powerplant and Related Systems Organizational Maintenance NV-1704-0052
QH-50D Operational Telemetry Maintenance NV-1715-0592
QH-50D Target Control System AN/SRW-4B Intermediate Maintenance NV-1715-0417
QH-50D Weapons System Electronic Intermediate Maintenance NV-1715-0633

Quality
Communications Quality Monitoring System Operator NV-1715-0690
DD-963 Facilities Control Quality Monitoring and Message Processing (FCQM) Operators, Class F-1 NV-1715-0869
DD-963 Facilities Control Quality Monitoring Processing Unit Operators NV-1715-0869

Quarry
EO"C" Blasting and Quarry Operations NV-1710-0064
Equipment Operators/Blasting and Quarry Operations, Class C NV-1710-0064

Quartermaster
Advanced Submarine Quartermaster School NV-1708-0003
Basic Quartermaster NV-1708-0005 NV-2202-0076
Basic Quartermaster, Enlisted NV-1708-0004
Basic Submarine Quartermaster, Class A NV-1722-0007
Quartermaster First Class by Correspondence CG-1304-0007
Quartermaster Second Class by Correspondence CG-1722-0002
Quartermaster Third Class by Correspondence CG-1722-0003

R-11
R-11 Centrifugal 110 Ton Air Conditioning Combined Maintenance NV-1701-0004

R-1524(P)/WRR
Electronics Technician Class C, R-1524(P)/WRR Countermeasures Receiver Maintenance NV-1715-0028

RA3B
A3B, RA3B, EA3B AN/ALQ-35 DECM System Maintenance NV-1715-0525

RA-5C
A-5A RA-5C AN/ASB-12 Line and Shop Maintenance NV-1715-0521
A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment NV-1402-0044
RA-5C Aircraft Familiarization NV-1606-0022
RA-5C Aircraft Familiarization (Pilot/RAN) NV-1606-0022
RA-5C Air Data and Flight Reference Systems NV-1715-0454
RA-5C Air Data and Flight Reference Systems Organizational Maintenance NV-1715-0454
RA-5C AN/AAS-21 Infrared Detecting Set Intermediate Maintenance NV-1715-0222
RA-5C AN/ALQ-55 DECM System NV-1715-0687
RA-5C AN/ALQ-61 Countermeasure Set Shop Maintenance NV-1715-0367
RA-5C AN/ALQ-61 Countermeasures Set Special Support Equipment NV-1715-0686
RA-5C AN/ALQ-61 Passive Electronics Countermeasures Organizational Maintenance NV-1715-0366
RA-5C AN/APD-7 Side Looking Radar (SLR) Intermediate Maintenance NV-1715-0248
RA-5C AN/APN-120 Electronic Altimeter Intermediate Maintenance NV-1715-0479
RA-5C AN/ASB-12 Bomb Directing Set Organizational Maintenance NV-1715-0579
RA-5C AN/ASB-12 Verdan and Digital Test Equipment Intermediate

- Maintenance NV-1402-0044
- RA-5C AN/ASQ-56A Integrated Electronics Central and Related Systems Intermediate Maintenance NV-1715-0145
- RA-5C AN/AYA-1 Signal Data Converter Group Intermediate Maintenance NV-1715-0424
- RA-5C Armament Intermediate Maintenance NV-1704-0166
- RA-5C Avionics Officers/Supervisors Familiarization NV-1704-0038
- RA-5C Communication Navigation Identification (CNI) and DECM Organizational Maintenance NV-1704-0075
- RA-5C Electrical and Indicating Systems (Intermediate Maintenance) NV-1704-0099
- RA-5C Electrical and Indicating Systems Organizational Maintenance NV-1704-0069
- RA-5C Electronic Reconnaissance Line Maintenance NV-1715-0246
- RA-5C Electronic Reconnaissance Organizational Maintenance NV-1715-0224
- RA-5C Flight Control and Electrical Systems Electronics Intermediate Maintenance NV-1715-0601
- RA-5C Flight Control Intermediate Maintenance NV-1715-0453
- RA-5C Flight Control System Electronics (Intermediate Maintenance) NV-1715-0732
- RA-5C Flight Control System Organizational Maintenance NV-1715-0455
- RA-5C Maintenance Supervisors Familiarization NV-1717-0005
- RA-5C Panoramic Camera Shop Maintenance NV-1715-0143
- RA-5C Photographic Electronics Fundamentals NV-1715-0152
- RA-5C Photo Reconnaissance Line Maintenance NV-1715-0748
- RA-5C Photo Reconnaissance System Organizational Maintenance NV-1715-0748
- RA-5C Photo Systems Electronics NV-1715-0543
- RA-5C Plane Captains Organizational Maintenance NV-1717-0002
- RA-5C Power Plants and Related Systems NV-1704-0045
- RA-5C Power Plants and Related Systems Organizational Maintenance NV-1704-0045
- RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance NV-1715-0542
- RA-5C Semi-Automatic Test Equipment Bomb Director NV-1715-0547
- RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance NV-1715-0238
- RA-5C Semi-Automatic Test Equipment, Programmer, System Analyzer and Countermeasures Test Bench AN/ULM-1 Intermediate Maintenance NV-1715-0176
- RA-5C Shoehorn Organizational Maintenance NV-1715-0269
- RA-5C Side Looking Radar (SLR) AN/APD-7 (XN-1) Shop Maintenance NV-1715-0248
- RA-5C Signal Data Converter Group Test Equipment Intermediate Maintenance NV-1715-0032
- RA-5C Still Picture Camera Shop Maintenance NV-1715-0439
- RA-5C Structures and Hydraulic Sub-Systems NV-1704-0041
- RA-5C Structures and Hydraulic Sub-Systems Organizational Maintenance NV-1704-0041
- RA-5C Survival and Environmental Systems NV-1704-0040
- RA-5C Survival and Environmental Systems Organizational Maintenance NV-1704-0040

Race

- Defense Race Relations Institute DD-1512-0001
- Intercultural Relations—Race Relations Specialist Training NV-1512-0001

Radar

- A3B ASB-7 Radar Stabilization and Auxiliary Subsystems Maintenance (Less CP-209 and AN/APN-122) NV-1715-0363
- A-4C/E AN/APG-53A Radar Maintenance NV-1715-0280
- A-4C/E/F AN/APG-53A Radar Intermediate Maintenance NV-1715-0280
- A-6A AN/APQ-112 Track Radar Test Console and Detailed Radar Intermediate Maintenance NV-1715-0435
- A-6A AN/APQ-92 Search Radar and Module Analyzer Test Bench Intermediate Maintenance NV-1715-0431
- A-6 AN/APQ-112 Track Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0302
- A-6 AN/APQ-92 Radar Antenna/Receiver and Associated Test Set Intermediate Maintenance NV-1715-0514
- A-6 AN/APQ-92 Search Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0596
- A-6 Associated Radar Test Equipment Intermediate Level Maintenance NV-1715-0406
- A-6A Track Radar and Module Analyzer Test Console Intermediate Maintenance NV-1715-0429
- A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance NV-1715-0297
- A-6 Search Radar Module Analyzer Test Console NV-1715-0530
- A-6 Track Radar Module Analyzer Test Console and Detailed Module Theory (Intermediate Level Maintenance) NV-1715-0429
- A-7 AN/APN-190 Doppler Radar Navigation System Intermediate Maintenance NV-1715-0200
- A-7 AN/APQ-116 Radar Set Intermediate Maintenance NV-1715-0408
- A-7E AN/APQ-126 Radar Set Intermediate Maintenance NV-1715-0260
- Airborne Radar Intercept Operator NV-1715-0635
- Air Controlman (Radar), Class A NV-1704-0010
- AN/APD-7 Side Looking Radar Intermediate Maintenance NV-1715-0248
- AN/APN-130 Radar Navigation Set Intermediate Maintenance NV-1715-0553
- AN/APN-153(V) Doppler Radar Navigation System Intermediate Maintenance NV-1715-0507
- AN/APN-154(V) Radar Beacon Intermediate Maintenance NV-1715-0584
- AN/APN-171 Radar Altimeter System Class C CG-1715-0026
- AN/APN-171 (V) Radar Altimeter (High Level) Intermediate Maintenance NV-1715-0359
- AN/APN-171(V) Radar Altimeter (Low Level) Intermediate Maintenance NV-1715-0493
- AN/APN-175 Doppler Radar, Navigation CG-1715-0027
- AN/APN-182(V) Radar Navigational Set Intermediate Maintenance NV-1715-0583
- AN/APN-195 Weather Radar Systems Class C CG-1715-0025
- AN/APQ-124A Radar Set Intermediate Maintenance NV-1715-0428
- AN/APQ-126 Radar Set Special Support Equipment Intermediate Maintenance NV-1715-0513
- AN/APS-115 Search Radar System Intermediate Maintenance NV-1715-0516
- AN/APS-20E Radar System Maintenance NV-1715-0484
- AN/APS-38B Radar System Maintenance NV-1715-0485
- AN/APS-82 Radar System Intermediate

Maintenance NV-1715-0287
AN/APX-72 Radar Indentification System Intermediate Maintenance NV-1715-0591
AN/ASB-1A Radar Sub-System Intermediate Maintenance NV-1715-0226
AN/ASB-7 Radar Sub-System Intermediate Maintenance NV-1715-0235
AN/BPS-12, 13, 14 Radar System Maintenance NV-1715-0312
AN/BPS-13 Radar Maintenance NV-1715-0312
AN/BPS-15 Radar Combined Maintenance NV-1715-0491
AN/SPA-37/37A Radar Sets, AN/SPA-63 Countermeasures Receiving Group, and AN/SPS-43/43A Radar Sets Differences NV-1715-0790
AN/SPG-53A Radar Maintenance NV-1715-0283
AN/SPS-29C Radar Set Maintenance (Electronics Technician, Class C1) NV-1715-0756
AN/SPS-29E Radar Set Maintenance (ELectronics Technician, Class C1) NV-1715-0749
AN/SPS-39A Radar Operation and Maintenance (AN/SPS-39 Radar Maintenance) NV-1715-0233
AN/SPS-39A Radar Set NV-1715-0233
AN/SPS-39 Radar Set NV-1715-0233
AN/SPS-40B/C/D Radar Set Difference Maintenance NV-1715-0745
AN/SPS-40B/C/D Radar Set Maintenance NV-1715-0809
AN/SPS-40B Radar Set Maintenance (Electronics Technician, Class C1) NV-1715-0809
AN/SPS-40 Radar System NV-1715-0557
AN/SPS-43A/37A Radar Set Maintenance (Electronics Technician, Class C1) NV-1715-0790
AN/SPS-48 Radar Set NV-1715-0304
AN/SPS-52 Radar Set NV-1715-0524
AN/SPS-64(V) -1,2,3,4 Radar CG-1715-0051
AN/SPS-T3 Radar Trainer Class C Maintenance NV-1715-0199
Aviation Electronics Technician R (Radar), Class A NV-1715-0295
Aviation Radar Repair MC-1715-0055
Aviation Radar Repair (A) MC-1715-0055
Aviation Radar Repair (B) MC-1715-0052
Aviation Radar Repair (C) MC-1715-0059
Aviation Radar Repair (D) MC-1715-0054
Aviation Radar Repairman (B) MC-1715-0052
Aviation Radar Technician MC-1715-0058
Basic Radar MC-1715-0061
Bright Radar Indicator Tower Equipment Maintenance, Class C NV-1715-0276
Carrier Air Traffic Control Center Equipment Maintenance, Radar Set AN/SPN-43, Class C NV-1715-0236
E-1B AN/APS-82 Radar System Maintenance NV-1715-0287
E-2A AN/APS-96 Search Radar Intermediate Maintenance NV-1715-0672
EA-6B Communications, Navigation and Radar System Organizational Maintenance NV-1715-0311
Electronics Technician AN/SPS-40 Radar Set Maintenance NV-1715-0557
Electronics Technician, Class A—A-3 (Radar) NV-1715-0725
Electronics Technician, Class A (Communications, Radar and Sonar Specialties) NV-1715-0727
Electronics Technician, Class A, Phase SEIR (Shipboard Equipment Indoctrination, Radar) NV-1715-0638
Electronics Technician, Class A (Radar) NV-1715-0731
Electronics Technician, Class C, AN/SPS-29 Radar Set NV-1715-0024
Electronics Technician, Class C, AN/SPS-37, 37A Radar Sets and AN/SPA-63 Countermeasures Receiving Group NV-1715-0298
Electronics Technician, Class C, AN/SPS-37/A Radar Set and AN/SPA-63 Countermeasures Receiving Group NV-1715-0298
Electronics Technician Class C, AN/SPS-40A Radar Set Maintenance NV-1715-0006
Electronics Technician, Class C, AN/SPS-8 Radar Maintenance NV-1715-0305
Electronics Technician, Class C, Shipboard Equipment Indoctrination (Radar) NV-1715-0638
Electronics Technician Radar Basic NV-1715-0854
Electronics Technician Radar, Class A1 NV-1715-0854
Electronics Technician Radar Equipment Fundamentals, Class A1 NV-1715-0855
Electronics Technician Radar—Nuclear Field, Class A1 NV-1715-0856
Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance NV-1715-0296
F-4B AN/APA-157 Radar Set Group Intermediate Maintenance NV-1715-0257
F-4B AN/APQ-72 Radar Set Intermediate Maintenance NV-1715-0430
F-8 AN/APQ-124 Radar Intermediate Maintenance NV-1715-0428
F8 AN/APQ-83A Radar Intermediate Maintenance NV-1715-0206
F-8 AN/APQ-83B Radar Intermediate Maintenance NV-1715-0214
F-8 AN/APQ-94 Radar Intermediate Maintenance NV-1715-0365
F-8 AN/APR-30(V) Radar Set Intermediate Maintenance NV-1715-0116
Fleet Replacement Radar Navigator NV-1606-0036
Ground Controlled Approach Electronics Maintenance, Radar Set AN/CPN-4A, Class C NV-1715-0079
Ground Controlled Approach Electronics Maintenance (Radar Set AN/FPN-36), Class C NV-1715-0217
Ground Controlled Approach Electronics Maintenance, Radar Set AN/MPN-5, Class C NV-1715-0080
Ground Controlled Approach Electronics Technician, Radar Set AN/MPN-1B, Class C NV-1715-0078
Ground Controlled Approach Maintenance (Engineman), Radar Sets AN/CPN-4A and AN/MPN-5, Class C NV-1715-0081
Ground Radar Repair MC-1715-0062
Ground Radar Technician MC-1715-0051
Gun Fire Control Radar Mk 25 Mod 3 Maintenance NV-1715-0127
Gun Fire Control System (GFCS) (Less Radar) Operation and Maintenance NV-1715-0210
Gun Fire Control System (GFCS) Mk 37 Maintenance (Less Mk 25 Mod 3 Radar) NV-1715-0210
Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance NV-1715-0728
Integrated Avionics Radar System Technician NV-1715-0035
KC-130F AN/APN-59B Radar Intermediate Maintenance NV-1715-0041
KC-130F AN/APN-59 Radar Maintenance NV-1715-0036
Marine Air Traffic Control Unit Radar Maintenance, Class C NV-1715-0038
Marine Air Traffic Control Unit Radar Repairman, Class C NV-1715-0038

Mk 68 Gun Director and AN/SPG-53F Radar Maintenance
NV-1715-0239

P-3 AN/APS-80 Search Radar System Maintenance, 49
NV-1715-0695

P-3 AN/APX-6 Radar Identification System Intermediate Maintenance
NV-1715-0118

P-3 AN/APX-7 Radar Recognition System Intermediate Maintenance
NV-1715-0511

P-3C Sensor Station Three (Radar/Displays) Integrated System Organizational Maintenance
NV-1715-0640

P-3C Sensor Station Three (Radar/Display Technician) Organizational Maintenance
NV-1715-0640

P-3 Radar and IFF Systems Organizational Maintenance
NV-1715-0114

RA-5C AN/APD-7 Side Looking Radar (SLR) Intermediate Maintenance
NV-1715-0248

RA-5C Side Looking Radar (SLR) AN/APD-7 (XN-1) Shop Maintenance
NV-1715-0248

Radar AN/BPS-12, 13, 14 Combined Maintenance
NV-1715-0312

Radar Fundamentals
CG-1715-0044
MC-1715-0063

Radar Mk 25 Mod 3 Maintenance
NV-1715-0129

Radar Repeater Systems Maintenance (Electronics Technician, Class C1)
NV-1715-0029

Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0402

Radar Signal Processing Equipment (RSPE) Maintenance Mk 1 and Mods
NV-1715-0403

Radar (Target) Intelligence
NV-1709-0015

Radar Theory and Maintenance by Correspondence
CG-1715-0065

RF-4B AN/APN-159 Radar Altimeter Maintenance
NV-1715-0223

RF-4B AN/APQ-102 Side Looking Radar Intermediate Maintenance
NV-1715-0399

RF-4B AN/APQ-99 Forward Looking Radar Intermediate Maintenance
NV-1715-0415

S-2D/E AN/APN-122 Doppler Radar Navigation System Maintenance
NV-1715-0422

S-2D/E AN/APS-88/88A Radar Set Maintenance
NV-1715-0438

SH-3A AN/APN-130 Doppler Radar Navigation Maintenance
NV-1715-0237

SP-2 AN/APS-20B/E Radar Set Intermediate Maintenance Course
NV-1715-0671

Submarine Radar Maintenance (Enlisted)
NV-1715-0061

Talos Radar AN/SPG-49B, Class C
NV-1715-0282

Talos Radar AN/SPW-2B
NV-1715-0793

Talos Radar AN/SPW-2B, Class C
NV-1715-0278

Tartar Radar AN/SPG-51B or Radar AN/SPG-51C, Class C
NV-1715-0421

Tartar Radar Set AN/SPG-51C and Director Mk 73 Mod 1
NV-1715-0512

Tartar Radar Test Set Mk 474 Mod 2
NV-1715-0396

Terrier AN/SPG-55B ASMD 70 Radar Update
NV-1715-0801

Terrier ASMD-70 55B Radar Update
NV-1715-0801

Terrier Radar AN/SPQ-5A
NV-1715-0291

Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT)
NV-1715-0693

Terrier Radar Set AN/SPG-55B Mod 5
NV-1715-0526

Terrier Radar Set AN/SPG-55B Mod 5 (Fleet Input)
NV-1715-0597

UH-2A AN/APN-130 Radar Navigation Equipment
NV-1715-0432

RADAR/MAD

RADAR/MAD for Nonacoustic Operator P3A/B (D)
NV-1715-0678

Radarman

Class A Radarman School (Operational Course)
NV-1715-0643

Radarman, Class A
CG-1715-0017
NV-1715-0643

Radarman, Class A, Basic Preventive Maintenance and Operators
NV-1715-0401

Radarman, Class B
NV-1715-0593

Radarman, Class B, Maintenance Phase
NV-1715-0593

Radarman, Class B, Operational Phase
NV-1715-0593

RADIAC

RADIAC Instrument Maintenance
NV-1715-0545

Radio

Airborne Radio Communications Operator (ARCO)
NV-1715-0481

Airborne Radio Operator/Loadmaster
MC-2204-0019

Airborne Radio Operators
MC-1715-0032

AN/ARC-27 UHF Radio Set Intermediate Maintenance
NV-1715-0351

AN/ARC-52 Radio Set Intermediate Maintenance
NV-1715-0773

AN/ARC-94 Radio Transceiver Intermediate Maintenance
NV-1715-0100

AN/FRT-83, 84 and 85 Radio Transmitters Maintenance, Class C1
NV-1715-0325

AN/GRC-27A Radio Equipment Maintenance
NV-1715-0106

AN/SPN-40 Radio Navigation Set (Electronics Technician, Class C1)
NV-1715-0015

AN/SRC-20, AN/SRC-21 Radio Sets Maintenance (Electronics Technician, Class 1)
NV-1715-0088

AN/SRC-20 Radio Transceiver
NV-1715-0089

AN/SRC-21 Radio Set
CG-1715-0045

AN/SRC-42(V) Radio Set
CG-1715-0053

AN/SRN-18 Radio Satellite Navigation Set Maintenance, Class C-1
NV-1715-0810

AN/SRN-9A, Radio Navigation Set, Operation and Maintenance
NV-1715-0441

AN/SRN-9 Satellite Radio Navigation Set Maintenance (Electronics Technician, Class C1)
NV-1715-0099

AN/URT-23 Radio Transmitter With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1)
NV-1715-0056

AN/URT-23 Radio Transmitting Set and AN/URA-38 Antenna Coupler Group
CG-1715-0058

AN/URT-23(V) Radio Transmitter Maintenance
NV-1715-0531

AN/URT-23(V) Radio Transmitting Set and AN/URA-38 Antenna Coupler Maintenance, Class C
NV-1715-0056

AN/WRC-1 Radio Set Maintenance (Electronics Technician, Class C1)
NV-1715-0010

AN/WRT-2 Radio Transmitter Maintenance (Electronics Technician, Class C1)
NV-1715-0011

Aviation Radio Repair
MC-1715-0011
MC-1715-0041

Aviation Radio Technician
MC-1715-0047

Basic Airborne Radio Communications Operator
NV-1715-0481

Basic Radio
MC-1715-0066

Cryptologic Technician T, Field Operations Type Two, Class A3, International Commercial Radio (ICR) Non-Morse
NV-1715-0839

E-1B ARC-97 Radio Repeater System Maintenance
NV-1715-0195

E-2A AN/ARC-80 Radio Set Intermediate Maintenance
NV-1715-0190

E-2A Radio Set AN/ARC-80 Intermediate Maintenance
NV-1715-0190

Electronics Technician, AN/SRC-20, AM/SRC-21 Radio Set Maintenance
NV-1715-0088

Electronics Technician, AN/URC-9, AN/SRC-20,AN/SRC-21 Radio Sets

with AN/ SRA-33 Antenna Coupler Maintenance
NV-1715-0088
Electronics Technician AN/URN-20 Radio Set Class C Maintenance
NV-1715-0193
Electronics Technician, Class C, AN/ SRN-9 Radio Navigation Set
NV-1715-0099
Electronics Technician (Class C) AN/ URC-58, AN/VRC-46 Radio Sets Maintenance
NV-1715-0095
Field Radio Operator
MC-1409-0002
Ground Radio Repair
MC-1715-0009
Ground Radio Technician
MC-1715-0045
Polaris/Poseidon Radio Navigation Set AN/BRN-3, Data Processor Advanced Training, Class F1
NV-1715-0915
Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1
NV-1715-0911
Radio Aids Unit (Device 1-D-5), Class C
NV-1715-0372
Radio and Television Production Specialist
DD-0505-0001
Radio Chief
MC-1717-0002
Radio Communications System Maintenance for DD963 Class Ships, Class C-1
NV-1715-0870
Radio Direction Finder AN/BRD-6 Combined Maintenance
NV-1715-0903
Radio Direction Finder AN/BRD-6 Operational Maintenance
NV-1715-0903
Radio Equipment Submarine Maintenance
NV-1715-0885
Radio Fundamentals
MC-1715-0010
Radio Navigation Set AN/BRN-3/3A Computer Advanced Training
NV-1715-0925
Radio Operator
MC-1715-0025
Radio Relay Repair
MC-1715-0008
Radio Technician
MC-1715-0029
Radio Telegraph Operator
MC-1715-0070
Radio Transceiver AN/SRC-20 Maintenance
NV-1715-0089
Radio Transceiver AN/WRC-1 Family Equipment
NV-1715-0531
Radio Transmitting Set AN/URT-23 (V) Maintenance (Enlisted)
NV-1715-0378
Special Ground Radio Repair
MC-1715-0068

Radioactive
Radioactive Isotope Technic
NV-0705-0002
Radioactive Isotope Technician, Class C
NV-0705-0002

Radiobeacon
Radiobeacon Operation
CG-2205-0006

Radiographic
Radiographic Safety Officer
NV-0802-0004

Radiography
Aircraft Maintenance Radiography School, Class C
NV-1704-0156

Radiological
Submarine Tender Radiological Controls
NV-1720-0001
Submarine Tender Radiological Controls (Enlisted)
NV-0705-0005

Radioman
Radioman
CG-1404-0001
Radioman Class A
CG-1404-0001
NV-1715-0595
Radioman, Class B
NV-1715-0317
Radioman, Class C7
NV-1715-0317
Radioman Second Class by Correspondence
CG-1404-0002
Submarine Radioman Electricity and Electronics
NV-1715-0316

Radiomen
Class B, Radiomen
NV-1715-0317

Radiosonde
Radiosonde Set Operator, Class C
NV-1606-0052
Rawin-Radiosonde Set Operator, Class C
NV-1606-0027

Rapid
3"/50 Caliber Rapid Fire Gun Mount Maintenance
NV-2202-0085
5"/54 Rapid Fire Gun and Mount Mk 42 Mods 7 and 8, Class C1
NV-1715-0520
Gun Maintenance 5"/54 Caliber Rapid Fire Mk 42
NV-1715-0179

Rawin
Rawin-Radiosonde Set Operator, Class C
NV-1606-0027
Rawin Set Operator, Class C
NV-1606-0029

RD-281(V)/UYK
Data Systems Technician, Class C, Peripherial Group RD-281(V)/UYK Recorder Reproducer Magnetic Disk File Equipment Maintenance
NV-1715-0656

RD-294/UYK
Data Systems Technician RD-294/UYK Magnetic Tape Unit Maintenance, Class C
NV-1715-0110

RD-358
RD-358 Magnetic Tape Subsystem Accelerated
MC-1715-0084

Receiver
AN/ALM-108 Receiver Test Console AN/ALQ-99 Receivers Intermediate Maintenance
NV-1715-0054
AN/ARC-131 Receiver Transmitter Intermediate Maintenance
NV-1715-0188
AN/ARN-52(V) TACAN Receiver Intermediate Maintenance
NV-1715-0519
AN/AWG-10 Receiver, Intermediate Maintenance
NV-1715-0350
AN/SPN-29 Receiver
CG-1715-0006
AN/SPN-30 Receiver
CG-1715-0008
AN/UPN-12 Loran Receiver Set Maintenance (Electronics Technician, Class C1)
NV-1715-0814
Communications Receiver Site Systems Maintenance, Class C1
NV-1715-0356
Electronics Technician, AN/SRN-14, Omega Receiver Maintenance, Class C
NV-1715-0590
Electronics Technician Class C, R-1524(P)/WRR Countermeasures Receiver Maintenance
NV-1715-0028
Electronics Technician, Class C, Wideband Synthesized Independent Sideband Receiver
NV-1715-0523
F-4J AN/AWG-10 Receiver Intermediate Maintenance
NV-1715-0350
Polaris/Poseidon Radio Navigation Set AN/BRN-3 Receiver Advanced Training, Class F1
NV-1715-0911
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance
NV-1715-0797
S-2E AN/ARC-94 HF Receiver-Transmitter System Maintenance
NV-1715-0244
Satellite Receiver AN/WRN-5 Combined Maintenance, Class C-1
NV-1715-0913

Receivers
AN/ALM-109 Test Console and AN/ ALQ-99 Tracking Receivers and Control Modulators Intermediate Maintenance
NV-1715-0052

Receiving
AN/ALR-45 Countermeasures Receiving Set Intermediate Maintenance
NV-1715-0933
AN/ALR-54 Countermeasures Receiving Set Intermediate Maintenance
NV-1715-0775
Countermeasures Receiving Set AN/ WLR-11A
NV-1715-0841
Countermeasures Receiving Set AN/ WLR-1C (IV) Class F-1
NV-1715-0817
Electronics Technician, Class C, AN/ SPN-38 Loran Receiving Set Maintenance
NV-1715-0364
Electronics Technician, Class C, AN/

SRN-12 Omega Receiving Set Maintenance NV-1715-0201
Electronics Technician, Class C, AN/UPN-12 Loran Receiving Set Maintenance, Class F-1 NV-1715-0814
Loran Receiving Set AN/WPN-5 Operation and Maintenance NV-1715-0131
Loran Receiving Sets AN/SPN-38 and AN/WPN-5 Operation, Maintenance and Functional Checkout NV-1715-0131
Sonar Receiving Set AN/BQG-4/4A (PUFS) Combined Maintenance NV-1715-0261
Sonar Receiving Set AN/BQG PUFS Maintenance NV-1715-0261
Sonar Receiving Set AN/BQR-15 Mod 0 Advanced Maintenance, Class F1 NV-1715-0912
Sonar Receiving Set AN/BQR-15 Mod 0 Operator and Maintenance NV-1715-0912
Sonar Receiving Set AN/WLR-9A/12 Combined Maintenance NV-1715-0265

Reciprocating
Aviation Machinist's Mate R(Reciprocating), Class A NV-1704-0149
Aviation Machinist's Mate R (Reciprocating), Class B NV-1704-0158

Reckoning
Mk 9 Mod 4 Dead Reckoning Analyzer Indicator (DRAI) and Mk 6 Mod 4B Dead Reckoning Tracer (DRT), Class C NV-1715-0344

Recognition
P-3 AN/APX-7 Radar Recognition System Intermediate Maintenance NV-1715-0511

Reconnaissance
Amphibious Reconnaissance NV-0803-0001
Photographic Reconnaissance (Class O) NV-1709-0004
Photographic Reconnaissance Officers, Class O NV-1709-0004
RA-5C Electronic Reconnaissance Line Maintenance NV-1715-0246
RA-5C Electronic Reconnaissance Organizational Maintenance NV-1715-0224
RA-5C Photo Reconnaissance Line Maintenance NV-1715-0748
RA-5C Photo Reconnaissance System Organizational Maintenance NV-1715-0748
RF-4B AN/AAS-18 Infrared Reconnaissance Mapping System Intermediate Maintenance NV-1715-0225

Recorder
AN/ALH-6 Recorder/Reproducer Intermediate Maintenance NV-1715-0073
AN/AQA-7 (V) Sonar Computer-Recorder Group Intermediate Maintenance NV-1715-0774
AN/AQH-1 Recorder/Reproducer Intermediate Maintenance NV-1715-0191
AN/AQH-4 Sound Recorder/Reproducer Set Intermediate Maintenance NV-1715-0093
AN/ASH-20 (V) Flight Recorder-Locator System Intermediate Maintenance NV-1704-0230
Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance NV-1715-0296
RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance NV-1715-0368

Recording
Electronics Technician, Class C, AN/UXH-2B Facsimile Recording Equipment Maintenance NV-1715-0012
P-3 AN/AQA-5 Sonar Data Recording System Maintenance, No. 46 NV-1715-0121

Records
Disbursing Clerk (Pay Records Maintenance) Class C NV-1401-0001

Recordskeeper
Ship's Servicemen Recordskeeper NV-1405-0001

Recovery
Aircraft Launch and Recovery Equipment (C-13 and C-13 Mod 1 Catapults), Class C NV-1704-0187
Aircraft Launch and Recovery Equipment (C-13 Catapult, Class C NV-1704-0187
Aircraft Launch and Recovery Equipment (C-7/11 Catapult), Class C NV-1710-0071
Aircraft Launch and Recovery Equipment, Class O NV-1704-0184
Aircraft Launch and Recovery Equipment Maintenance Officer (C-13 Catapult), Class O NV-1704-0200
Aircraft Launch and Recovery Equipment Maintenance Officer (C-7/11 Catapult), Class O NV-1704-0183
Aviation Boatswain's Mate E (Aircraft Launch and Recovery Equipment), Class A NV-1704-0042
Disaster Recovery Training I and II NV-0801-0003
Marine Aircraft Launch and Recovery Equipment, Class A NV-1710-0061

Recreation
Recreation Management NV-0902-0002

Recruit
Recruit Procurement, Class C NV-1406-0010
Recruit Training CG-2205-0011 MC-2204-0038 NV-2202-0014
Recruit Training (Women) MC-2204-0046

Recruiter
Marine Corps Recruiter MC-1406-0009
Recruiter MC-1406-0009

Recruiters
Recruiters Journalism, Class C-1 NV-0504-0002

Redeye
Redeye Gunner/Operator MC-2204-0012
Redeye Gunner—Platoon Training MC-2204-0012
Redeye Gunner—Platoon Training (Abbreviated Course) MC-2204-0011

Reference
A-7A/B Attitude Heading and Reference System Intermediate Maintenance NV-1721-0006
Central Gyro Reference System (AN/AJA-2), Class C NV-1715-0708

Refrigerant
Air Conditioning Refrigerant 11 NV-1730-0006
Refrigerant 11 Air Conditioning NV-1730-0006

Refrigeration
Air Conditioning and Refrigeration, Class C NV-1701-0005
Air Conditioning and Refrigeration, Class C-1 NV-1701-0005
Basic Refrigeration Mechanic MC-1730-0002
Basic Refrigeration Theory and Maintenance NV-1730-0001
Journeyman Refrigeration Mechanic MC-1730-0004
Refrigeration and Air Conditioning (Operation and Maintenance) CG-1701-0001
Refrigeration Mechanic MC-1730-0002
Refrigeration Specialist MC-1730-0001
Submarine Refrigeration and Air Conditioning R-12 NV-1730-0003

Regulators
Generator Regulators, Class F-1 NV-1715-0901

Relay
Radio Relay Repair MC-1715-0008
Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9–12 NV-1715-0389

Relay Transmitter
Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9–12 NV-1715-0389

Remote
A-4C/E Bombing System AN/AJB-3 and Remote Standby Attitude Indicator NV-1715-0615

A-4E Bombing System AN/AJB-3A and Remote Standby Indicator System (Organizational) NV-1704-0098
Remote Control System Repairman MC-1715-0072
Remote Sensor System for Physical Security, Class C1 NV-1721-0001

Repair
Repair Shop Machinist MC-1723-0006

Repeater
E-1B ARC-97 Radio Repeater System Maintenance NV-1715-0195
Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22A(V)2 NV-1715-0781
Electronic Warfare Deception Repeater Systems Maintenance, AN/SLQ-22B(V)1 NV-1715-0781
Electronic Warfare Technician, Class A (A-3), Deception Repeater Systems Maintenance NV-1715-0781
Radar Repeater Systems Maintenance (Electronics Technician, Class C1) NV-1715-0029

Reperforator
Teletype Reperforator TT-253/UGC Combined Maintenance NV-1715-0664
Teletypewriter Reperforator TT-253/UG NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Teletypewriter Distributor TT187/UG Series NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines NV-1715-0664

Reporter
Basic Legal Clerk and Reporter MC-1407-0001
Legal Clerk/Court Reporter MC-1407-0001
Legal Services Reporter SPCM (Closed Microphone) MC-1728-0005

Reporting
Processing and Reporting NV-1715-0821 NV-1715-0822
Reserve Cryptologic Technician Processing and Reporting, Phase I NV-1715-0821
Reserve Cryptologic Technician Processing and Reporting, Phase II NV-1715-0822

Reproduction
Reproduction Equipment Repair DD-1706-0002

Rescue
Rescue Coordination Center for Reservists CG-0802-0005
Search and Rescue CG-0802-0003
Search and Rescue Class C CG-0802-0003

Research
Dental Technician Research Assistant, Class C NV-0701-0004

Reserve
Aviation Reserve Officer Candidate (AVROC) NV-2202-0088
Information Officer (Reserve Component) DD-0504-0011
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs) CG-1717-0003
Reserve Air Intelligence (RAI) NV-1606-0055
Reserve Basic Intelligence Training Subjects (BITCS) NV-1606-0056
Reserve Components National Security Seminar DD-1511-0006
Reserve Cryptologic Technician, Basic Cryptanalysis NV-1715-0824
Reserve Cryptologic Technician Communications Technical Control, Class F1 NV-1715-0848
Reserve Cryptologic Technician Direct Support NV-1715-0834
Reserve Cryptologic Technician—Intermediate Cryptanalysis NV-1715-0820
Reserve Cryptologic Technician Naval Security Group Orientation NV-1715-0823
Reserve Cryptologic Technician Processing and Reporting, Phase I NV-1715-0821
Reserve Cryptologic Technician Processing and Reporting, Phase II NV-1715-0822
Reserve Cryptologic Technician Signal Analysis, Class F1 NV-1715-0845
Reserve Cryptologic Technician Simulated Operational Training Phase I NV-1715-0825
Reserve Cryptologic Technician Simulated Operational Training Phase II NV-1715-0826
Reserve Cryptologic Technician Simulated Operational Training Phase III NV-1715-0827
Reserve Cryptologic Technician T, Advanced, Class F1 NV-1715-0844
Reserve Naval Security Group-1 NV-1715-0823
Reserve Naval Security Group-10-T NV-1715-0844
Reserve Naval Security Group-13 NV-1715-0824
Reserve Naval Security Group-13.1 Intermediate Cryptanalysis NV-1715-0820
Reserve Naval Security Group-3 NV-1715-0821
Reserve Naval Security Group-4 NV-1715-0822
Reserve Naval Security Group-5 Signal Analysis NV-1715-0845
Reserve Naval Security Group-7 Communications Technical Control NV-1715-0848
Reserve Naval Security Group Simulated Operational Training Phase I NV-1715-0825
Reserve Naval Security Group Simulated Operations Training Phase II NV-1715-0826
Reserve Naval Security Group Simulated Operations Training Phase III NV-1715-0827
Reserve Officer Candidate (ROC II and ROC I) NV-2202-0103
Reserve Officer, Chief Leadership and Management CG-1717-0004
Reserve Petty Officer Leadership and Management CG-1717-0002
Reserve Training Officer Direct Support Operations, Class F1 NV-1715-0834
Shore Fire Control Party Enlisted (Modified for U.S. Marine Corps Reserve) NV-2202-0061

Reservists
Cold Weather Field Indoctrination Training for FMF Cadets and Reservists MC-0803-0003
RCC Reservists CG-0802-0005
Rescue Coordination Center for Reservists CG-0802-0005

Retrieval
CVA IOIC Storage and Retrieval Officer NV-1402-0043

Retrofit
Sonar AN/SQS-26AX Retrofit Maintenance NV-1715-0806

RF-4B
F-4B/J-RF-4B AN/ALQ-88 Countermeasures Set Intermediate Maintenance NV-1715-0393
RF-4B AN/AAS-18 Infrared Reconnaissance Mapping System Intermediate Maintenance NV-1715-0225
RF-4B AN/APN-159 Radar Altimeter Maintenance NV-1715-0223
RF-4B AN/APQ-102 Side Looking Radar Intermediate Maintenance NV-1715-0399
RF-4B AN/APQ-99 Forward Looking Radar Intermediate Maintenance NV-1715-0415
RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance NV-1715-0368
RF-4B AN/ASN-46/56 Navigational Computer and Inertial Navigation System Intermediate Maintenance NV-1715-0228
RF-4B AN/ASN-46/74 Navigation Computer and Inertial Navigation System Intermediate Maintenance NV-1715-0465
RF-4B AN/ASN-55 Attitude Heading Reference System Maintenance NV-1715-0468

RF-4B AN/ASQ-88 and AN/ASQ-108 Communication Navigation Identification (CNI) Line Troubleshooting Maintenance
NV-1715-0357
RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director
NV-1715-0562
RF-4B AN/ASQ-90 Airborne Data Annotation System Maintenance
NV-1715-0240
RF-4B Camera Control System Intermediate Maintenance
NV-1715-0752
RF-4B Camera Control System Organizational Maintenance
NV-1715-0750
RF-4B Inertial Navigation System Intermediate Maintenance
NV-1715-0465
RF-4B Inertial Navigation System Organizational Maintenance
NV-1715-0614
RF-4B Photographic Film Correlator-Processor Set ES-55A Intermediate Maintenance
NV-1715-0751
RF-4B Shoehorn Organizational Maintenance
NV-1715-0765

Rifleman
Rifleman
MC-2204-0051

Rigger
Parachute Rigger, Class A
NV-1704-0234
Parachute Rigger (Maintenance), Class A
NV-1704-0234
Parachute Rigger School, Class B
NV-1717-0012

Rigging
Standard Tensioned Replenishment Alongside Methods (STREAM) Rigging and Passing
NV-1710-0015
UNREP Rigging Procedures
NV-1710-0015

Right
A-6 Right Hand Unit Alignment Test Set, and Encoder Tape Dial Test Set Intermediate Maintenance
NV-1715-0335

River
River Assault Craft Training
NV-1708-0001
River Patrol Craft Training
NV-1722-0010

Riverine
Mobile Riverine Force Staff Officer Training
NV-2202-0048
Riverine/Coastal Advisor Training
NV-0602-0001

RO-254/ASQ
RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance
NV-1715-0368

ROC
Reserve Officer Candidate (ROC II and ROC I)
NV-2202-0103

Rock
Mountain Operations (Rock Climbing)
MC-0803-0005

Rocket
Gunner's Mate Class C Rocket Launcher Mk 108
NV-1715-0618

ROM
Read Only Memory (ROM) Encoder Elevator Control Maintenance, Class C1
NV-1715-0392

Romanian
Romanian
DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0004
DD-0602-0006

Rotary
Rotary Wing Antisubmarine Warfare Tactics
NV-2202-0008
Rotary Wing Flight Mechanics
NV-1606-0063

Rotor
H-53 Rotor and Related Systems Organizational Maintenance
NV-1704-0062
HH-2D/SH-2D Airframes, Hydraulic, Flight Controls, and Rotor Systems Organizational Maintenance
NV-1704-0058
UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems Maintenance
NV-1704-0061
UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance
NV-1704-0057

Rotors
AH-1J Powertrain and Rotors Organizational Maintenance
NV-1704-0153
CH-46A Rotors and Related Systems Maintenance
NV-1704-0060
H-46 Rotors and Related Systems Organizational Maintenance Course
NV-1704-0154
UH-1N Powertrain and Rotors Organizational Maintenance
NV-1704-0175

RSPE
Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0728
Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0402
Radar Signal Processing Equipment (RSPE) Maintenance Mk 1 and Mods
NV-1715-0403

RT-541
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance
NV-1715-0797

RT-541/ASQ
E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance
NV-1715-0375

RT-547
F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance
NV-1715-0394
RT-541/ASQ Receiver/Transmitter and KY-309/ASQ Pulse Decoder and RT-547/ASQ-19 Receiver/Transmitter and KY-312/ASQ-19 Pulse Decoder Intermediate Maintenance
NV-1715-0797

RT-559/ASQ
E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance
NV-1715-0746

RT 648/698
RT 648/698 (AN/ARC-94/102/105/119/120) HF Transceiver Intermediate Maintenance
NV-1715-0373

RT-648/ARC-94
RT-648/ARC-94 and RT-698/ARC-102 HF Transceiver Intermediate Maintenance
NV-1715-0369

RT-698/ARC-102
RT-648/ARC-94 and RT-698/ARC-102 HF Transceiver Intermediate Maintenance
NV-1715-0369

RT-736
RF-4B AN/ASQ-88 RT-736 and KY-531 Flight Director
NV-1715-0562
RT-736 and KY-531 TACAN (Tactical Air Navigation) Intermediate Maintenance
NV-1715-0796

RT-793/ASQ
F-4J RT-793/ASQ UHF Transceiver Intermediate Maintenance
NV-1715-0701

Russian
Basic Russian—Refresher
DD-0602-0011
Russian
DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0005
DD-0602-0006
DD-0602-0007
DD-0602-0009
Russian Refresher
DD-0602-0008
Russian Stenotype
DD-0602-0003
Scientific Russian
DD-0602-0008

S-2
Prospective ASW Flight Instructor (S-2 Type Aircraft)
NV-1606-0020

S-2D
VS CRAG Pilot ASW Indoctrination, Equipments, and Tactics—S-2D Aircraft
NV-2202-0043

S-2D/E
S-2D/E Airframes and Hydraulics Systems Maintenance

NV-1704-0066
S-2D/E AN/AKT-19A Multi-Channel Jezebel Relay Intermediate Maintenance NV-1715-0243
S-2D/E AN/APN-122 Doppler Radar Navigation System Maintenance NV-1715-0422
S-2D/E AN/APS-88/88A Radar Set Maintenance NV-1715-0438
S-2D/E AN/ASN-30 Navigational Computer Display Unit and AN/ASQ-80 Coordinate Data Set System Maintenance. NV-1715-0331
S-2D/E AQA-4(V) Indicator Group System Intermediate Maintenance NV-1715-0561
S-2D/E Avionics Systems Organizational Maintenance NV-1715-0641
S-2D/E Electrical and Instruments Maintenance, No. 6 NV-1704-0086
S-2D/E MH-67 Auto Pilot System Maintenance, No. 7 NV-1715-0472
S-2D/E Power Plant and Related Systems Maintenance NV-1704-0171

S-2E
S-2E AN/ARC-94 HF Receiver-Transmitter System Maintenance NV-1715-0244
VS CRAG Pilot ASW Indoctrination, Equipments, and Tactics—S-2E Aircraft NV-2202-0042

S-2G
S-2G AN/AQA-7(V)3 Sonar Computer Recorder Group Organizational Maintenance NV-1715-0258
VS AW Sensor Operator S2G NV-1715-0517

S-3A
S-3A Copilot Avionics NV-1606-0057

S-5
A-3 S-5 Auto Pilot Maintenance NV-1704-0198
KC-130-F S-5 Automatic Pilot and Related Instruments Intermediate Maintenance NV-1715-0736

SACE
E-2A Computer Detector Semi-Automatic Check-Out Equipment (SACE) (OA-3731/ASM-76) Operation and Maintenance NV-1715-0349
E-2A Computer Indicator (CI) Semi-Automatic Check-Out Equipment (SACE) Operation and Maintenance NV-1715-0318
E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance NV-1715-0323
E-2A Semi-Automatic Check-Out Equipment (SACE) (OA-3738/ASA-48) Programmer Maintenance NV-1715-0348

Safety
Aviation Structural Mechanic E (Safety Equipment), Class A NV-1704-0130
Aviation Structural Mechanic E (Safety Equipment), Class B NV-1704-0116
Boating Safety by Correspondence CG-0802-0001
Marine Safety Basic Indoctrination CG-0802-0002
Merchant Marine Safety CG-0802-0002
Merchant Marine Safety Indoctrination School CG-0419-0001
National Boating Safety CG-0802-0004
Navy Alcohol Safety Action Program (NASAP) NV-0799-0002
Radiographic Safety Officer NV-0802-0004
Safety Inspector Class C NV-1728-0007
Water Safety/Survival Instructor MC-0803-0002

Salvage
Landing Craft Beach and Surf Salvage NV-1708-0002
Ship Salvage Diving Officers NV-1606-0015

Sanitation
Environmental Sanitation Technic NV-0707-0001

Sargent-Fletcher
Douglas Model D-704 and Sargent-Fletcher Model 31-300 Air Refueling Stores Organizational Maintenance NV-1704-0046

Satellite
AN/SRN-18 Radio Satellite Navigation Set Maintenance, Class C-1 NV-1715-0810
AN/SRN-9 Satellite Radio Navigation Set Maintenance (Electronics Technician, Class C1) NV-1715-0099
AN/WSC-3 Satellite Communications Set and OE-82B/WSC-1(V) Antenna Group NV-1715-0876
AN/WSC-5 Tactical Satellite Communications System Maintenance NV-1715-0877
Fleet Satellite Communications Fleet Broadcast Control Subsystem Maintenance (Electronics Technician, Class C1) NV-1715-0874
Meteorological Satellite, Class C NV-1304-0006
Satellite Navigation System AN/WRN-5 NV-1715-0913
Satellite Receiver AN/SRN-9A, BRN-6 Combined Maintenance, Class F1 NV-1715-0492
Satellite Receiver AN/SRN-9A Combined Maintenance NV-1715-0492
Satellite Receiver AN/WRN-5 Combined Maintenance, Class C-1 NV-1715-0913
Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance NV-1715-0873
Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance NV-1715-0871 NV-1715-0878
Tactical Satellite Communications Equipment Maintenance AN/WSC-5(V) NV-1715-0877

Saturn
Enginemen, Class C, Solar T-10205-11A Saturn Engine NV-1710-0067
Solar T-10205-11A Saturn Engine, Class C1 NV-1710-0067

SCATMOD
SCATMOD 1 NV-1715-0927
SCATMOD 2 NV-1715-0928
SCATMOD 3 NV-1715-0929
SCATMOD 4 NV-1715-0930
SCATMOD 5 NV-1715-0931
SCATMOD 6 NV-1715-0932

School
School Administration, Class C1, Course 'Golf' NV-0326-0002

Science
Class A Marine Science Technician CG-1304-0001
Marine Science Technician CG-1304-0001
Marine Science Technician by Correspondence CG-1304-0003

Scientific
Naval Enlisted Scientific Education Program (NESEP) NV-2202-0101

Scientific Russian
Scientific Russian DD-0602-0008

Scout
Artillery Scout Observer MC-2204-0032

Screening
EO"C" Crushing and Screening Operations NV-1710-0043
Equipment Operators/Crushing and Screening Plant Operations, Class C NV-1710-0043

Scuba
Closed and Semiclosed Scuba NV-1606-0012
Scuba Diver NV-1606-0011

Sea
Sea Duty Indoctrination MC-2204-0014
Sea School MC-2204-0014

Seamanship
Officer Candidate School (Seamanship, Orientation, Operations & Military Indoctrination) CG-2202-0001

Search
A-6A AN/APQ-92 Search Radar and

Module Analyzer Test Bench Intermediate Maintenance NV-1715-0431
A-6 AN/APQ-92 Search Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0596
A-6 Search Radar Module Analyzer Test Console NV-1715-0530
AN/APS-115 Search Radar System Intermediate Maintenance NV-1715-0516
E-2A AN/APS-96 Search Radar Intermediate Maintenance NV-1715-0672
P-3 AN/APS-80 Search Radar System Maintenance, 49 NV-1715-0695
Search and Rescue CG-0802-0003
Search and Rescue Class C CG-0802-0003

Searchlight
P-3 Power Generating System and AVQ-2 Searchlight Intermediate Maintenance NV-1715-0659

Second Tour
AASW for Second Tour Pilots, P3A/B(D) NV-2202-0032
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/B(D) NV-2202-0032
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P-3C NV-2202-0021

SECT
AN/BST-1 SECT Maintenance for Submarine Tender Technician NV-1715-0900
SECT Buoy AN/BST-1 Basic Maintenance, Class F1 NV-1715-0900
Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance NV-1715-0900

Security
Defense Security Assistance Management Core DD-1408-0001
Defense Security Assistance Management Overseas DD-0327-0001
Industrial Security Specialist DD-1728-0001
Information Security Management DD-1728-0002
Marine Security Guard MC-1728-0001
National Security Management (Correspondence Course of the Industrial College of the Armed Forces) DD-1511-0001
Naval Internal Security Force Training NV-1728-0002
Naval Security Group Direct Support Operations NV-1715-0832
Port Security/Law Enforcement Enlisted CG-1728-0002
Port Security/Law Enforcement Officer CG-1728-0001
Port Security School CG-1728-0004
Remote Sensor System for Physical Security, Class C1 NV-1721-0001
Reserve Components National Security Seminar DD-1511-0006
Reserve Cryptologic Technician Naval Security Group Orientation NV-1715-0823
Reserve Naval Security Group-1 NV-1715-0823
Reserve Naval Security Group-10-T NV-1715-0844
Reserve Naval Security Group-13 NV-1715-0824
Reserve Naval Security Group-13.1 Intermediate Cryptanalysis NV-1715-0820
Reserve Naval Security Group-3 NV-1715-0821
Reserve Naval Security Group-4 NV-1715-0822
Reserve Naval Security Group-5 Signal Analysis NV-1715-0845
Reserve Naval Security Group-7 Communications Technical Control NV-1715-0848
Reserve Naval Security Group Simulated Operational Training Phase I NV-1715-0825
Reserve Naval Security Group Simulated Operations Training Phase II NV-1715-0826
Reserve Naval Security Group Simulated Operations Training Phase III NV-1715-0827

SEI
Sonar Electronics Intermediate (SEI) NV-1715-0867

SEIN
Electronics Technician, Class A, Phase SEIN (Shipboard Equipment Indoctrination, Communications) NV-1715-0639

SEIR
Electronics Technician, Class A, Phase SEIR (Shipboard Equipment Indoctrination, Radar) NV-1715-0638

Self-Noise
Self-Noise Determination and Classification NV-1601-0012

Self-Propelled
Self-Propelled Vehicle Repairman MC-1703-0006
Tracked Vehicle Repairman Self-Propelled Artillery MC-1703-0006
Tracked Vehicle Repairman (Self-Propelled Artillery), Basic MC-1703-0006

Semi-Automatic
RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance NV-1715-0542
RA-5C Semi-Automatic Test Equipment Bomb Director NV-1715-0547
RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance NV-1715-0238
RA-5C Semi-Automatic Test Equipment, Programmer, System Analyzer and Countermeasures Test Bench AN/ULM-1 Intermediate Maintenance NV-1715-0176

Seminar
Defense Economics and Decision Making Off-Campus Graduate Seminar NV-1511-0006
Defense Economics and Decision Making Self-Administered Seminar (Naval War College) NV-1511-0008
Strategy and Policy Off-Campus Graduate Seminar NV-1511-0007
Strategy and Policy Self-Administered Seminar (Naval War College) NV-1511-0009

Senior
Leadership and Management (for Junior and Senior Petty Officers, and Reserve Petty Officers and Chiefs) CG-1717-0003
National Senior Intelligence DD-1606-0001
Noncommissioned Officers (NCO) Leadership (Senior) MC-2204-0015
Platoon Leaders Class (Senior) MC-2204-0040
Senior Course MC-1408-0008
MC-1408-0011
Senior Enlisted Supply MC-1405-0014
Senior Officer Helicopter Training NV-1704-0196
Senior Officers Orientation NV-1704-0196
Senior Petty Officer Leadership and Management CG-1717-0001
Senior School MC-1408-0008
Women Officers Training (Senior) MC-2204-0003

Sensor
Combat Sensor Warfare Training NV-2202-0071
Light Airborne Multi-Purpose System (LAMPS) Sensor Operator NV-1715-0767
NV-2202-0034
P-3A/B Sensor Station One and Two (Acoustic System Technician) Organizational Maintenance NV-1715-0506
P-3C Sensor Station One and Two (Acoustic Systems Technician) Organizational Maintenance NV-1715-0256
P-3C Sensor Station Three (Radar/Displays) Integrated System Organizational Maintenance NV-1715-0640
P-3C Sensor Station Three (Radar/Display Technician) Organizational Maintenance NV-1715-0640
Remote Sensor System for Physical Security, Class C1 NV-1721-0001

VS AW Sensor Operator S2G
NV-1715-0517

Serbo-Croatian
Serbo-Croatian
DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0006

Sergeants
First Sergeants Personnel Administration
MC-1406-0005
Sergeants Major Personnel Administration
MC-1406-0004

Services
Marine Corps Special Services Training
MC-0804-0001

SH-2D
SH-2D Light Airborne Multipurpose Systems (LAMPS) Avionic Equipment Organizational Maintenance
NV-1715-0697

SH-3
SH-3 Airframe and Hydraulic Systems Maintenance
NV-1704-0124
SH-3 Airframes and Hydraulic Systems Organizational Maintenance
NV-1704-0047
SH-3 AN/AQS-13 Sonar Maintenance
NV-1715-0386
NV-1715-0677
SH-3 AN/ASA-13A Navigation System Intermediate Maintenance
NV-1715-0241
SH-3 AN/AYK-2 Navigation System Intermediate Maintenance
NV-1715-0227
SH-3 Automatic Stabilization Equipment Intermediate Maintenance
NV-1715-0621
SH-3 Automatic Stabilization Equipment Organizational Maintenance
NV-1704-0096

SH-3A
SH-3A AN/APN-130 Doppler Radar Navigation Maintenance
NV-1715-0237
SH-3A AN/AQS-10 Sonar Intermediate Maintenance
NV-1715-0231
SH-3A AN/AQS-10 Sonar Maintenance
NV-1715-0231
SH-3A AN/ASA-13A Navigational Computer Maintenance
NV-1715-0333
SH-3A Automatic Stabilization Equipment Maintenance
NV-1715-0616
SH-3A Electrical Systems Maintenance
NV-1704-0083
SH-3A Power Plants and Related Systems Maintenance
NV-1704-0134
NV-1704-0144

SH-3A/D
SH-3A/D AN/AQS-13A Sonar Intermediate Maintenance
NV-1715-0747
SH-3A/D Automatic Navigation System (AN/AYK-2) Intermediate Maintenance
NV-1715-0227
SH-3A/D Electrical Systems Organizational Maintenance
NV-1704-0114

SH-3A/G
SH-3A/G Power Plants and Related Systems Organizational Level Maintenance
NV-1704-0146

SH-3D/H
SH-3D/H Power Plants and Related Systems Organizational Maintenance Course
NV-1704-0139

Shaft
Propulsion Shaft Components
NV-1710-0057

Sheetmetal
SW"C" Sheetmetal
NV-1723-0007

SH/HH-2D
SH/HH-2D Power Plant and Related Systems Organizational Maintenance
NV-1704-0172

Ship
A-6 Ship and Shore Inertial Platform Test Station Intermediate Maintenance
NV-1715-0177
Ship Landing Party Indoctrination
NV-2202-0049
Ship Salvage Diving Officers
NV-1606-0015
Ship Serviceman/Class C/Shipboard Barber
NV-1726-0001

Shipboard
Data Systems Technician (Shipboard Tactical Data Systems Officer and Senior Technician Maintenance) Class C
NV-1402-0041
Data Systems Technician (Shipboard Tactical Data Systems Senior Technician) Class C
NV-1402-0041
Electronics Technician, Class A, Phase SEIN (Shipboard Equipment Indoctrination, Communications)
NV-1715-0639
Electronics Technician, Class A, Phase SEIR (Shipboard Equipment Indoctrination, Radar)
NV-1715-0638
Electronics Technician Class C, AN/VCC-2 Shipboard System
NV-1715-0016
Electronics Technician, Class C Shipboard Equipment Indoctrination (Communications)
NV-1715-0639
Electronics Technician, Class C, Shipboard Equipment Indoctrination (Radar)
NV-1715-0638
Nuclear, Biological and Chemical (NBC) Defense (Shipboard)
NV-0801-0001
Shipboard Decoy System (CHAFFROC) Launcher Operation and Maintenance Mk 28 Mod 1-5
NV-1715-0684
Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat)
DD-0504-0010
Shipboard Tactical Data Systems Maintenance
NV-1402-0041
Shipboard Thermal Insulation (Lagging)
NV-1710-0039
Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance
NV-1715-0873
Target Designation System Mk 5 Shipboard Maintenance
NV-1715-0315

Shipfitters
Shipfitters, Class A (Metalsmith)
NV-1723-0006
Shipfitters, Class A (Pipefitters)
NV-1710-0041
Shipfitters Hull Maintenance Technician, Class A, Phase 2
NV-1723-0005

Shiploading
Shiploading and Stowage
NV-1708-0007

Ships
Electronics Technician, Class C, SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician
NV-1715-0130
Electronics Technician, Ship's Navigation and Aircraft Inertial Alignment System (SNAIAS), Class C Operator Maintenance
NV-1715-0014
Mk 2 Mod 1 Ships Inertial Navigation System (SINS) Maintenance
NV-1402-0039
Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance
NV-1715-0426
Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance (Enlisted)
NV-1715-0426
Radio Communications System Maintenance for DD963 Class Ships, Class C-1
NV-1715-0870
Ships Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance I
NV-1715-0921
Ships Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II
NV-1715-0922
Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1
NV-1715-0916
Ships Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I
NV-1715-0919
NV-1715-0920
Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1
NV-1703-0009
Ship's Servicemen Recordskeeper
NV-1405-0001
SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 4 Technician
NV-1715-0440
SSN Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance
NV-1715-0426

Shoehorn
A-6A Shoehorn Organizational Maintenance
NV-1715-0458
F-4B Shoehorn Organizational

Maintenance
NV-1715-0457
F-4J Shoehorn Organizational Maintenance
NV-1715-0395
F/RF-8 Shoehorn Organizational Maintenance
NV-1715-0644
RA-5C Shoehorn Organizational Maintenance
NV-1715-0269
RF-4B Shoehorn Organizational Maintenance
NV-1715-0765

Shop
A-5A RA-5C AN/ASB-12 Line and Shop Maintenance
NV-1715-0521
RA-5C AN/ALQ-61 Countermeasure Set Shop Maintenance
NV-1715-0367
RA-5C Still Picture Camera Shop Maintenance
NV-1715-0439
Shop Stores Procedures, Class C
NV-1405-0003

Shore
Basic Shore Party Man
MC-2204-0029
Shore Facilities Planning
NV-1408-0017
Shore Fire Control Party
NV-2202-0037
Shore Fire Control Party Enlisted
NV-2202-0062
Shore Fire Control Party Enlisted (Modified for U.S. Marine Corps Reserve)
NV-2202-0061
Shore Party Basic Specialist
MC-1710-0017
Shore Structure Maintenance by Correspondence
CG-1710-0005
Utilitiesman, Shore Based Boiler Controls, Class C
NV-1710-0027

Short
Defense Language Institute Short Basic Courses
DD-0602-0004
Marine Corps Short Airfield For Tactical Support, Class C
NV-1710-0014

Shrike
Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance
NV-1715-0619
Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore)
NV-1715-0702

Sideband
Electronics Technician, Class C, Wideband Synthesized Independent Sideband Receiver
NV-1715-0523

Sidewinder
Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance
NV-1715-0619
Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore)
NV-1715-0702

Signal
Gun Fire Control System (GFCS), Mk 37, Mk 68, Mk 56 Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0728
RA-5C AN/AYA-1 Signal Data Converter Group Intermediate Maintenance
NV-1715-0424
RA-5C Signal Data Converter Group Test Equipment Intermediate Maintenance
NV-1715-0032
Radar Signal Processing Equipment (RSPE) Maintenance
NV-1715-0402
Radar Signal Processing Equipment (RSPE) Maintenance Mk 1 and Mods
NV-1715-0403
Reserve Cryptologic Technician Signal Analysis, Class F1
NV-1715-0845
Reserve Naval Security Group-5 Signal Analysis
NV-1715-0845

Signalman
Basic Signalman
NV-2202-0054

Simulated
Reserve Cryptologic Technician Simulated Operational Training Phase I
NV-1715-0825
Reserve Cryptologic Technician Simulated Operational Training Phase II
NV-1715-0826
Reserve Cryptologic Technician Simulated Operational Training Phase III
NV-1715-0827
Reserve Naval Security Group Simulated Operational Training Phase I
NV-1715-0825
Reserve Naval Security Group Simulated Operations Training Phase II
NV-1715-0826
Reserve Naval Security Group Simulated Operations Training Phase III
NV-1715-0827

Simulation
Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training
NV-1715-0908
Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1
NV-1715-0908

Simulator
Pilots C-121 Simulator and Advanced Flight
NV-1606-0034
Pilots C-121 Simulator and Basic Flight
NV-1606-0035

Single
AN/ARC-38A Single Side Band Transceiver Intermediate Maintenance
NV-1715-0094
AN/ARC-94 Single Side Band Transceiver Maintenance
NV-1715-0489
Electronics Technician Class C, High Power Independent Single Sideband Transmitter (AN/FRT-39; AN/URT-19; AN/URA-30)
NV-1715-0027

SINS
Electronics Technician, Class C, SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician
NV-1715-0130
Mk 2 Mod 1 Ships Inertial Navigation System (SINS) Maintenance
NV-1402-0039
Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance
NV-1715-0426
Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance (Enlisted)
NV-1715-0426
Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Operations (Enlisted)
NV-1715-0339
Ships Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance I
NV-1715-0921
Ships Inertial Navigation System (SINS) Mk 2 Mod 3 Theory and Maintenance II
NV-1715-0922
Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Control Theory
NV-1715-0232
Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1
NV-1715-0916
Ships Inertial Navigation System (SINS) Mk 2 Mods 1 and 4 Theory and Maintenance I
NV-1715-0919
NV-1715-0920
SINS Mk 2 Mod 6 Calibration
NV-1715-0202
SINS Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance
NV-1715-0916
SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 4 Technician
NV-1715-0440
SSN Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance
NV-1715-0426

Site
Communications Receiver Site Systems Maintenance, Class C1
NV-1715-0356
Communications Transmitter Site Systems Maintenance, Class C1
NV-1715-0387
Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat)
DD-0504-0010

Skiing
Mountain Operations (Military Skiing)
MC-0803-0004

Slovenian
Slovenian
DD-0602-0002

SLR
RA-5C AN/APD-7 Side Looking Radar (SLR) Intermediate Maintenance
NV-1715-0248
RA-5C Side Looking Radar (SLR) AN/APD-7 (XN-1) Shop Maintenance
NV-1715-0248

Small
- Small Arms Instructor CG-2205-0007

Sniper
- Navy Sniper Training NV-2202-0002

Software
- Central Computer Complex Combined Maintenance and Software NV-1402-0047
- SSN Central Computer Complex System Level Maintenance and Software NV-1402-0047

Solar
- Enginemen, Class C, Solar T-10205-11A Saturn Engine NV-1710-0067
- General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance CG-1710-0007
- Solar T-10205-11A Saturn Engine, Class C1 NV-1710-0067

Solid State
- Electronics Technician, Class C, Solid State Fundamentals NV-1715-0103
- Solid State Circuit Troubleshooting Techniques NV-1715-0149
- Solid State Theory NV-1715-0103
- Solid State Theory for Electronic Equipment NV-1715-0103

Sonar
- Advanced Sonar, 557 NV-1715-0694
- Advanced Sonar, 567 NV-1715-0692
- Advanced Sonar Course 566 NV-1715-0711
- Advanced Sonar Maintenance, 561 NV-1715-0685
- AN/AQA-7 (V) Sonar Computer-Recorder Group Intermediate Maintenance NV-1715-0774
- AN/BQQ-3A Sonar Maintenance NV-1715-0307
- AN/BQS-4 Sonar Maintenance NV-1715-0303
- AN/BQS-8B, 10A, 14A Sonar System Maintenance NV-1715-0868
- AN/BQS-8 (Series) Sonar Maintenance NV-1715-0124
- AN/SQA-13 (V) Independent Variable Depth Sonar Operation and Maintenance NV-1715-0772
- AN/UQN-4 Sonar Sounding Set Maintenance NV-1715-0425
- Basic Surface Sonar Technician, Class A Core Phase NV-1715-0423
- Electronics Technician, Class A (Communications, Radar and Sonar Specialties) NV-1715-0727
- General Submarine Sonar Maintenance NV-1715-0126
- Helicopter Aviation Antisubmarine Warfare Air Sonar Operator (AN/AQS-13) NV-2202-0080
- Mine Detection Sonar Technical Maintenance NV-1715-0740
- Mine Hunting Sonar Familiarization (Reserve) NV-2202-0098
- P-3 AN/AQA-5 Sonar Data Recording System Maintenance, No. 46 NV-1715-0121
- S-2G AN/AQA-7(V)3 Sonar Computer Recorder Group Organizational Maintenance NV-1715-0258
- SH-3A AN/AQS-10 Sonar Intermediate Maintenance NV-1715-0231
- SH-3A AN/AQS-10 Sonar Maintenance NV-1715-0231
- SH-3A/D AN/AQS-13A Sonar Intermediate Maintenance NV-1715-0747
- SH-3 AN/AQS-13 Sonar Maintenance NV-1715-0386 NV-1715-0677
- Sonar AN/BQS-11/12/13 Maintenance NV-1715-0865
- Sonar AN/SQQ-23A (PAIR) Organizational Maintenance NV-1715-0859
- Sonar AN/SQQ-23 (PAIR) Operator Basic NV-1715-0860
- Sonar AN/SQR-17 and AN/SKR-4 Organizational Maintenance NV-1715-0862
- Sonar AN/SQR-17 Organizational Maintenance NV-1715-0862
- Sonar AN/SQS-23 D–G Series (TRAM) Maintenance NV-1715-0864
- Sonar AN/SQS-23 D–G Series TRAM, MIP, LORA Maintenance NV-1715-0864
- Sonar AN/SQS-23 Operator NV-1715-0857
- Sonar AN/SQS-23 Series (Sonar) Operator Basic NV-1715-0857
- Sonar AN/SQS-26 AX(R) and CX Operations Basic NV-1715-0420
- Sonar AN/SQS-26AX Retrofit Maintenance NV-1715-0806
- Sonar AN/SQS-26 BX Maintenance NV-1715-0863
- Sonar AN/SQS-26CX and AN/SQS-53 Maintenance NV-1715-0405
- Sonar AN/SQS-26CX Maintenance NV-1715-0405
- Sonar AN/SQS-26 Series Sonar Operator Basic NV-1715-0420
- Sonar AN/SQS-35(IVDS) Operator NV-1715-0858
- Sonar AN/SQS-35(V) AN/SQS-38 Operator Basic NV-1715-0858
- Sonar AN/SQS-35(V) Maintenance NV-1715-0866
- Sonar AN/SQS-38 Maintenance (USCG) NV-1715-0404
- Sonar AN/SQS-39 Through 46 and Aspect Maintenance NV-1715-0783
- Sonar AN/SQS-53 Operator Basic NV-1715-0861
- Sonar AN/SQS-54B Organizational Maintenance NV-1715-0320
- Sonar AN/SQS-54B/SKR-4 Maintenance NV-1715-0320
- Sonar Classification Set AN/BQH-2D/E Combined Maintenance NV-1715-0503
- Sonar Detecting Ranging Set AN/BQS-11/12/13 Combined Maintenance NV-1715-0865
- Sonar Detecting/Ranging Set AN/BQS-8/10/14/20 Combined Maintenance NV-1715-0868
- Sonar Detecting-Ranging Set AN/SQS-26CX NV-1715-0405
- Sonar Electronics Intermediate (SEI) NV-1715-0867
- Sonar Receiving Set AN/BQG-4/4A (PUFS) Combined Maintenance NV-1715-0261
- Sonar Receiving Set AN/BQG PUFS Maintenance NV-1715-0261
- Sonar Receiving Set AN/BQR-15 Mod 0 Advanced Maintenance, Class F1 NV-1715-0912
- Sonar Receiving Set AN/BQR-15 Mod 0 Operator and Maintenance NV-1715-0912
- Sonar Receiving Set AN/WLR-9A/12 Combined Maintenance NV-1715-0265
- Sonar Sounding Set AN/UQN-4 NV-1715-0425
- Sonar Technician Class A-1 (Basic Electronics) NV-1715-0580
- Sonar Technician Class A-1 (Surface) NV-1715-0423
- Sonar Technician Class A-2 (Intermediate Electronics) NV-1715-0578
- Sonar Technician, Class B NV-1715-0158
- Sonar Technician First Class by Correspondence CG-1715-0034
- Sonar Technician Second Class by Correspondence CG-1715-0033
- Sonar Watch Supervisor and Advanced Watchstander Training NV-2202-0012
- Submarine Sonar AN/BQS-11/12/13 System Maintenance NV-1715-0865
- Submarine Sonar Subjective Analysis (SSSA) NV-1715-0689
- Submarine Sonar Technician A-1 NV-1715-0040
- Surface Sonar Technician, Class A NV-1715-0423

Sonarman
- Advanced Sonarman NV-1715-0158
- Basic Sonarman NV-1715-0042
- Class B Sonarman

NV-1715-0685
Sonarman, Class A NV-1715-0042

Sono
P-3 AN/AQA-1 Sono Indicator System Intermediate Maintenance NV-1715-0120

Sound
AN/AQH-4 Sound Recorder/Reproducer Set Intermediate Maintenance NV-1715-0093
RF-4B AN/ARC-105 High Frequency Communication System and RO-254/ASQ Sound Recorder Maintenance NV-1715-0368
Sound Analysis, Noise and Vibration Reduction (Enlisted) NV-1721-0010
Sound Equipment Repair MC-1715-0014, MC-1715-0042

Sounder
AN/UPR-2 Ionospheric Sounder Set Maintenance (Electronics Technician, Class C1) NV-1715-0004

SP-2
SP-2 AN/APS-20B/E Radar Set Intermediate Maintenance Course NV-1715-0671

SP-2E
SP-2E Systems Familiarization, Plane Captains NV-1704-0107

SP-2H
SP-2H Systems Familiarization, Plane Captains NV-1704-0082

Spanish
Spanish DD-0602-0001, DD-0602-0002, DD-0602-0003, DD-0602-0004, DD-0602-0006, DD-0602-0009

Sparrow
AN/DPM-7 Sparrow III Guided Missile Test Equipment Intermediate Maintenance NV-1715-0628
AN/DSM-32 Sparrow III Guided Missile Test Equipment Intermediate Maintenance NV-1715-0446
Sparrow III Missile Test Equipment Maintenance Training-Depot Test Equipment of the AN/DPM-7 NV-1715-0628
Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance NV-1715-0619

Sparrow III
Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore) NV-1715-0702

SPCM
Legal Services Reporter SPCM (Closed Microphone) MC-1728-0005

Special
Defense Language Institute Special Courses DD-0602-0008
Marine Corps Special Services Training MC-0804-0001
Special Mess Leadership Training MC-1729-0019
Special Operations Technic NV-0709-0005
Special Operations Technician NV-0709-0005
Special Photographic Course for Non-Photographic Personnel, Class C NV-1709-0005
Special Technology (Enlisted) NV-1715-0321
Special Technology I NV-1715-0905
Special Technology II NV-1715-0906
Special Technology III NV-1715-0907
SSN/CVA Special Technology (Enlisted) NV-1715-0416

Specialist
Alcoholism Treatment Specialist (ATS) NV-0801-0008

SPERRY
CONALOG II Maintenance (SPERRY) NV-1715-0636
Fin Stabilizer System (Sperry and Ledgewood Controls) Maintenance, Class C1 NV-1722-0004
Mk NC-2 Plotter Mod 1A (Sperry) Maintenance, Class C NV-1715-0075
Sperry Mk XIX Mod III Gyrocompass NV-1715-0062

Spotter
Naval Gunfire Air Spotter NV-2202-0053, NV-2202-0059
Troop Naval Gunfire Spotter NV-2202-0057

Spotters
Naval Gunfire Spotters (Troop Officers) NV-2202-0064

SSB
AN/ARC-38A SSB Transceiver Maintenance NV-1715-0486

SSBN
Electronics Technician, Class C, SSBN CNC Technician Maintenance NV-1715-0085
Electronics Technician, Class C, SSBN NAVDAC FBM Tender Navigation Maintenance NV-1715-0168
Electronics Technician, Class C, SSBN Navigation Aids, FBM Tender Navigation Maintenance NV-1715-0064
Electronics Technician, Class C, SSBN Navigation Aids Technician Maintenance NV-1715-0063
Electronics Technician, Class C, SSBN Ships Inertial Navigation, FBM Tender Navigation Maintenance NV-1715-0065
Electronics Technician, Class C, SSBN Ships Inertial Navigation System Mk 2 Mod 0-6 Technician NV-1715-0066
Electronics Technician, Class C, SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 2/3 Technician NV-1715-0130
SSBN Command Weapons System Orientation—Polaris NV-1715-0573
SSBN Mk 84 Polaris Weapons Officer NV-1715-0577
SSBN NAVDAC Mk 2 Mod 4, SDC Mk 2 Mod 1 NV-1715-0242
SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 2 Mod 1 NV-1715-0242, NV-1715-0427
SSBN Navigation Officer NV-1606-0026
SSBN Ships Inertial Navigation System (SINS) Mk 2 Mod 4 Technician NV-1715-0440

SSIXS
Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance NV-1715-0873
Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance NV-1715-0871, NV-1715-0878

SSM
SSM Degaussing System for DD963 Class Destroyer, Class C1 NV-1601-0017

SSN
SSN Central Computer Complex System Level Maintenance and Software NV-1402-0047
SSN Mk 3 Mod 6 Ships Inertial Navigation System (SINS) Maintenance NV-1715-0426

SSN 637
Electronic Surveillance Measures (ESM) Technician SSN 637 Class, Class C-1 NV-1715-0883
ESM ELINT Technician SSN 637 Class, Class C-1 NV-1715-0888

SSN 668
Navigation Technician SSN 668 Class NV-1715-0881

SSN 688
Electronic Surveillance Measures (ESM) Technician SSN 688 Class, Class C1 NV-1715-0889

SSN/CVA
SSN/CVA Special Technology (Enlisted) NV-1715-0416

SSN/SSBN
Interior Communications (IC) Package Course for SSN/SSBN NV-1715-0886
SSN/SSBN Diesel Engine (Fairbanks-Morse) Maintenance NV-1712-0002
Submarine (SSN/SSBN) Auxiliary Machinery Operation and Maintenance NV-1730-0004

SSSA
Submarine Sonar Subjective Analysis (SSSA) NV-1715-0689

Stabilization
A3B ASB-7 Radar Stabilization and Auxiliary Subsystems Maintenance (Less CP-209 and AN/APN-122) NV-1715-0363
F-8 Electrical, Instruments and Stabilization Systems Organizational Maintenance NV-1715-0183
H-46 Stabilization Systems Intermediate Maintenance NV-1704-0136
HH-2D/SH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1704-0205
SH-3A Automatic Stabilization Equipment Maintenance NV-1715-0616
SH-3 Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0621
SH-3 Automatic Stabilization Equipment Organizational Maintenance NV-1704-0096
SSBN Navigation Data Assimilation Computer Mk 2 Mod 4, Stabilization Data Computer Mk 3 Mod 1 NV-1715-0427
UH-2A/B Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0464
UH-2A/B Automatic Stabilization Equipment Maintenance NV-1715-0464
UH-2A/B Automatic Stabilization Equipment Organizational Maintenance NV-1715-0464
UH-2C Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Organizational Maintenance NV-1715-0683

Stabilizer
Fin Stabilizer System (Sperry and Ledgewood Controls) Maintenance, Class C1 NV-1722-0004

Staff
Armed Forces Staff College DD-0326-0001
Marine Corps Command and Staff College MC-1408-0008
Mobile Riverine Force Staff Officer Training NV-2202-0048
Naval Gunfire Staff Officer NV-2202-0067
Naval Staff Advisor NV-1513-0001
Staff Noncommissioned Officers (NCO) Resident Course MC-1408-0014

Stainless
Stainless Steel Welding (Requalification) NV-1710-0047
Stainless Steel Welding Requalification—Phase I (Enlisted) NV-1710-0045
Stainless Steel Welding Requalification—Phase III (Enlisted) NV-1710-0048

Stand-Alone
ANWSC-3 Stand-Alone Maintenance NV-1715-0876

Standard
Standard Tensioned Replenishment Alongside Methods (STREAM) Rigging and Passing NV-1710-0015

Station
Station Management Systems NV-1408-0004

Steam
1200 PSI Steam Generating Plant Operator NV-1710-0075
CVA Catapult Steam and Drain System, Class C NV-1710-0008
Steam Components (Enlisted) NV-1710-0024
Steam Generating Plant Inspector NV-1732-0001
Steam Plant Automatic Controls Maintenance (Bailey Meter) NV-1710-0074
Steam Plant Automatic Controls Maintenance (General Regulator) NV-1710-0072
Steam Plant Automatic Controls Maintenance (Hagan) NV-1710-0073

Steelworker
Steelworker, Class J (SW"J") NV-1723-0008
Steelworker, Maintenance Welding Techniques, Class C NV-1710-0068
Steelworker/Sheetmetal, Class C NV-1723-0007
Steelworker/Welding Certification, Class C NV-1710-0053

Steelworkers
Steelworkers, Class A NV-1723-0009

Stenography
Stenography, Class C NV-1407-0003

Steward
Class P Steward's Apprentice NV-1729-0007
Commissaryman-Steward, Class A NV-1729-0004
Commissaryman-Steward, Class C NV-1729-0003
Commissaryman-Steward Management Principles, Class C NV-1729-0002
Steward MC-1729-0014
Steward Apprentice, Class P NV-1729-0007

Stewards
Advanced Stewards MC-1729-0002
Stewards NV-1729-0008

Still
RA-5C Still Picture Camera Shop Maintenance NV-1715-0439
Still Documentary Photography C1 NV-1709-0010

Stock
Basic Supply Stock Control MC-1405-0012

Storage
CVA IOIC Storage and Retrieval Officer NV-1402-0043
IOIC Intelligence Data System (Storage and Retrieval) Maintenance NV-1715-0030
IOIC Storage and Retrieval Operator/Officer Course NV-1402-0035
Storage and Retrieval DP Operator and Programmer NV-1402-0035
Transportation and Storage of Hazardous Material NV-0419-0007

Storekeeper
Aviation Storekeeper, Class A NV-1405-0004
Aviation Storekeeper, Class B NV-1408-0019
Storekeeper, Class A CG-1409-0002
Storekeeper, Class C (Uniform Automated Procedures for Tenders and Repair Ships) NV-1402-0045
Storekeeper School, Class A NV-1409-0006
Storekeeper Supply Afloat (Dependent Duty) Class C NV-1405-0002
Storekeeper Supply Afloat (Independent Duty), Class C NV-1405-0017

Storekeepers
Storekeepers (Independent Duty), Class C NV-1405-0017
Storekeepers (Repair Parts), Class C NV-1405-0013
Supply Storekeepers (Repair Parts), Class C-1 NV-1405-0013

Stores
Shop Stores Procedures, Class C NV-1405-0003

Stowage
Shiploading and Stowage NV-1708-0007

Strategic
Strategic Photographic Interpretation NV-1709-0012

Strategy
Naval War College Correspondence Course in Strategy and Policy NV-1511-0004
Strategy and Policy Off-Campus Graduate Seminar NV-1511-0007
Strategy and Policy Self-Administered Seminar (Naval War College) NV-1511-0009

STREAM
Standard Tensioned Replenishment Alongside Methods (STREAM) Rigging

- and Passing NV-1710-0015

Strike
- Strike Armament Intermediate Maintenance Repair NV-1715-0571

Stripping
- Lithographic Stripping and Platemaking DD-1719-0001

Stromberg Carlson
- Stromberg Carlson Automatic Telephone XY Switching System Maintenance, Class C1 NV-1715-0661

Strowger
- Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1 NV-1715-0735

Structural
- Aviation Structural Mechanic, Class B NV-1704-0239
- Aviation Structural Mechanic E (Safety Equipment), Class A NV-1704-0130
- Aviation Structural Mechanic E (Safety Equipment), Class B NV-1704-0116
- Aviation Structural Mechanic, First Class, by Correspondence CG-1704-0015
- Aviation Structural Mechanic H (Hydraulics), Class A NV-1704-0128
- Aviation Structural Mechanic H (Hydraulics), Class B NV-1704-0087
- Aviation Structural Mechanic, Second Class, by Correspondence CG-1704-0013
- Aviation Structural Mechanic S (Structures), Class A NV-1704-0132
- Aviation Structural Mechanic S (Structures, Class B NV-1704-0177
- Aviation Structural Mechanic S (Structures), Class C7 NV-1704-0177

Structure
- Shore Structure Maintenance by Correspondence CG-1710-0005

Structures
- A-6 Hydraulics, Flight Control and Structures Organizational Level Maintenance NV-1704-0129
- A7A/B Structures, Hydraulics and Pneumatic Systems Maintenance NV-1704-0190
- Aviation Structural Mechanic S (Structures), Class A NV-1704-0132
- Aviation Structural Mechanic S (Structures, Class B NV-1704-0177
- Aviation Structural Mechanic S (Structures), Class C7 NV-1704-0177
- Aviation Support Equipment Technician Hydraulics and Structures, Class A NV-1704-0138
- F/RF-4B Structures and Hydraulics Maintenance NV-1704-0122
- P-3 Hydraulics, Flight Control Systems and Structures Organizational Maintenance NV-1704-0161
- P-3 Structures, Hydraulic Power and Flight Controls Organizational Maintenance NV-1704-0206

Submarine
- Advanced Submarine Quartermaster School NV-1708-0003
- AN/BST-1 SECT Maintenance for Submarine Tender Technician NV-1715-0900
- Basic Enlisted Submarine NV-2202-0029
- Basic Submarine Officer NV-1408-0022
- Basic Submarine Quartermaster, Class A NV-1722-0007
- Enlisted Submarine Indoctrination NV-2202-0092
- General Submarine Sonar Maintenance NV-1715-0126
- Nuclear Submarine Medicine Technic NV-0709-0001
- Nuclear Submarine Medicine Technician, Class C NV-0709-0001
- Radio Equipment Submarine Maintenance NV-1715-0885
- Submarine Communication Application and Theory Module 1 NV-1715-0927
- Submarine Communication Application and Theory Module 2 NV-1715-0928
- Submarine Communication Application and Theory Module 3, Class A-1 NV-1715-0929
- Submarine Communication Application and Theory Module 4 NV-1715-0930
- Submarine Communication Application and Theory Module 5 NV-1715-0931
- Submarine Communication Application and Theory Module 6 NV-1715-0932
- Submarine Communications Equipment NV-1715-0885
- Submarine Communications Equipment Combined Maintenance NV-1715-0885
- Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance NV-1715-0900
- Submarine Gyrocompass Mk 19 Mod 3 NV-1715-0062
- Submarine Interior Communications (IC) Systems NV-1715-0642
- Submarine Low Pressure and Vapor Compression Distilling Units, Enlisted NV-1710-0025
- Submarine Medical Officer (Candidates) NV-0705-0001
- Submarine Medicine Technic NV-0709-0001
- Submarine Medicine Technician, Class C NV-0709-0001
- Submarine Officer Basic NV-1408-0022
- Submarine Officers Advanced NV-2202-0013
- Submarine Officers Indoctrination NV-2202-0056
- Submarine Radar Maintenance (Enlisted) NV-1715-0061
- Submarine Radioman Electricity and Electronics NV-1715-0316
- Submarine Refrigeration and Air Conditioning R-12 NV-1730-0003
- Submarine Satellite Information Exchange System (SSIXS) for Shipboard Installations Maintenance NV-1715-0873
- Submarine Satellite Information Exchange System (SSIXS) Operational Control Center Maintenance NV-1715-0871
NV-1715-0878
- Submarine Sonar AN/BQS-11/12/13 System Maintenance NV-1715-0865
- Submarine Sonar Subjective Analysis (SSSA) NV-1715-0689
- Submarine Sonar Technician A-1 NV-1715-0040
- Submarine (SSN/SSBN) Auxiliary Machinery Operation and Maintenance NV-1730-0004
- Submarine Tender Radiological Controls NV-1720-0001
- Submarine Tender Radiological Controls (Enlisted) NV-0705-0005
- Torpedoman's Mate, Class A, Submarine NV-1715-0720
- Torpedoman's Mate, Class A, Submarine and Surface Prerequisite NV-1715-0784

SUBROC
- SUBROC Missile Mk 28 Mod 0 Test Equipment Intermediate Maintenance NV-1715-0795
- SUBROC Missile Mk 28 Mod 1 Intermediate Maintenance NV-1715-0794

Subsistence
- Subsistence Specialist CG-1729-0002
- Subsistence Supply Man MC-1401-0001

Summer
- Mountain Leadership Training, Summer MC-2204-0007

Supervision
- Management and Supervision of Naval Personnel NV-1408-0007
- Supervision and Management, Class C NV-1406-0011

Supervisor
- IOIC Supervisor NV-1606-0002

Supply
- Advanced Supply Administration MC-1405-0005
- Automated Supply and Accounting Systems Afloat (AN/UYK-5(V)) NV-1401-0003
- Aviation Supply Enlisted Course

MC-1405-0001
Aviation Supply Officer
MC-1405-0018
Basic Qualification Course of the Supply Corps
NV-1405-0014
NV-1405-0015
NV-1405-0016
Basic Supply Administration
MC-1405-0004
Basic Supply Administration (Mechanized)
MC-1405-0005
MC-1405-0008
Basic Supply Fundamentals (Manual)
MC-1405-0004
Basic Supply Stock Control
MC-1405-0012
Ground Supply Officer Leadership
MC-1401-0002
Joint Aviation Supply and Maintenance Material Management
NV-1405-0009
Line Officer Supply (LOS)
NV-1405-0006
Marine Aviation Supply, Class C
NV-1405-0008
Marine Aviation Supply (Manual), Class C
NV-1409-0005
Marine Aviation Supply (Mechanized), Class C
NV-1405-0007
Senior Enlisted Supply
MC-1405-0014
Special Supply Orientation
MC-1405-0010
Storekeeper Supply Afloat (Dependent Duty) Class C
NV-1405-0002
Storekeeper Supply Afloat (Independent Duty), Class C
NV-1405-0017
Subsistence Supply Man
MC-1401-0001
Supply Administration
MC-1405-0005
Supply Ashore Refresher
NV-1405-0011
Supply Chief Leadership
MC-1405-0011
Supply Noncommissioned Officer (NCO) Leadership
MC-1405-0006
Supply Storekeepers (Repair Parts), Class C-1
NV-1405-0013
Unit Supply Officer
MC-1405-0017

Support
AN/APQ-126 Radar Set Special Support Equipment Intermediate Maintenance
NV-1715-0513
Aviation Support Equipment GTCP-100 and Enclosures Intermediate Maintenance
NV-1704-0109
Aviation Support Equipment GTCP-100 Engine Intermediate Maintenance
NV-1704-0109
Aviation Support Equipment Mobile Electric Power Plant Intermediate Maintenance
NV-1715-0541
Defense Language Institute Support Command Courses
DD-0602-0010
E-2A AN/ASQ-52 Data Communications System Special Support Equipment Intermediate Maintenance
NV-1715-0527
Electronic Warfare Electronic Support Measures System Maintenance, Class A
NV-1715-0780
Electronic Warfare Technician, Class A (A-2), Electronic Support Measures System Maintenance
NV-1715-0780
Naval Gunfire Support Planning
NV-2202-0089
Naval Security Group Direct Support Operations
NV-1715-0832
Officer Direct Support Operations, Class C4
NV-1715-0832
Reserve Cryptologic Technician Direct Support
NV-1715-0834
Reserve Training Officer Direct Support Operations, Class F1
NV-1715-0834

Supporting
Supporting Arms Coordination
NV-2202-0055
Supporting Arms Coordinator
NV-2202-0055

Surface
Basic Point Defense Surface Missile System
NV-1715-0778
Basic Surface Sonar Technician, Class A Core Phase
NV-1715-0423
Sonar Technician Class A-1 (Surface)
NV-1715-0423
Surface Explosive Ordnance Disposal Basic
NV-2202-0017
Surface Missile Systems, Officer
NV-1715-0758
Surface Sonar Technician, Class A
NV-1715-0423
Surface Warfare Officer School
NV-2202-0027
Surface Warrant Officer Indoctrination
NV-1408-0011
Torpedoman's Mate, Class A, Submarine and Surface Prerequisite
NV-1715-0784
Torpedoman's Mate, Class A, Surface
NV-1715-0719

Surveillance
585/594 FBM Electronic Surveillance Measures (ESM) Technician
NV-1715-0882
Electronic Surveillance Maintenace (ESM) AN/WLR-8(V)2 Combined Maintenance
NV-1715-0469
Electronic Surveillance Maintenace (ESM) AN/WLR-6 Basic Operator
NV-1715-0500
Electronic Surveillance Maintenace (ESM) AN/WLR-6 Combined Maintenance
NV-1715-0501
Electronic Surveillance Maintenace (ESM) AN/WYQ-1, AN-BRQ-1 Combined Maintenance
NV-1715-0494
Electronic Surveillance Measures (ESM) Technician SSN 637 Class, Class C-1
NV-1715-0883
Electronic Surveillance Measures (ESM) Technician SSN 688 Class, Class C1
NV-1715-0889
Engineering Control and Surveillance System Maintenance, Class C1
NV-1601-0014
Engineering Control and Surveillance System Operator, Class C1
NV-1601-0013

Survey
Optical Survey Instrument Repair
DD-1721-0001

Surveying
Advanced Geodetic Surveying
DD-1601-0003
Construction Surveying
DD-1601-0008
Geodetic Surveying
DD-1601-0002

Survival
A-6A Environmental, Escape and Survival Systems Organizational Maintenance
NV-1704-0085
Advanced Aircrew Survival Equipmentman
NV-1704-0208
Aircrew Survival Equipmentman, Class A
NV-1704-0234
Aircrew Survival Equipmentman, Class A1
NV-1704-0234
Aircrew Survival Equipmentman, Class C7
NV-1704-0208
Aircrew Survival Equipmentman School, Class B
NV-1704-0208
Basic Aircrew Survival Equipmentman
NV-1704-0234
Evasion, Escape and Survival Training
MC-0802-0002
Parachute Rigger (Survival), Class A
NV-1733-0001
RA-5C Survival and Environmental Systems
NV-1704-0040
RA-5C Survival and Environmental Systems Organizational Maintenance
NV-1704-0040
Survival, Evasion, Resistance to Interrogation and Escape (SERE)
MC-0802-0002

Survivalman
Aviation Survivalman, First Class, by Correspondence
CG-1704-0019
Aviation Survivalman, Second Class, by Correspondence
CG-1704-0018

Swahili
Swahili
DD-0602-0002

SW"C"
SW"C" Maintenance Welding
NV-1710-0068
SW"C" Sheetmetal
NV-1723-0007
SW"C" Welding Certification
NV-1710-0053

Swedish
Swedish

DD-0602-0001
DD-0602-0002

Swift
Swift Boat Crew Training
NV-1722-0009

Switchboard
Telephone Switchboard Repair
MC-1715-0073

Switching
Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1
NV-1715-0735
Stromberg Carlson Automatic Telephone XY Switching System Maintenance, Class C1
NV-1715-0661

SW"J"
Steelworker, Class J (SW"J")
NV-1723-0008

SWS
SWS (Strategic Weapons System) Command Polaris
NV-1715-0573
SWS (Strategic Weapons System) Weapons Officer Polaris
NV-1715-0606

Synchronizer
AN/FPN-38 Timer Synchronizer
CG-1715-0004

Synchrophaser
P-3 Synchrophaser/True Airspeed Computer/Signal Lights Control Intermediate Maintenance
NV-1715-0322

System
System Engineering
MC-1402-0002

System 360
IBM System 360 Computer System Programming (COBOL Language), Class C
NV-1402-0007
IBM System 360 Disk Operating System (DOS) Operations
MC-1402-0018
IBM System 360 (DOS) COBOL Programming
MC-1402-0011
IBM System 360 Operating System (OS) Operations
MC-1402-0023
IBM System 360 (OS) Advanced Coding
MC-1402-0037
IBM System 360 (OS) Advanced Operations Techniques
MC-1402-0022
IBM System 360 (OS) Advanced Programming Techniques)
MC-1402-0024
IBM System 360 OS Assembler Language
MC-1402-0031
IBM System 360 OS COBOL Language (Entry-level)
MC-1402-0029
IBM System 360 (OS) COBOL Programming
MC-1402-0013
MC-1402-0036
IBM System 360 (OS) Data Control Techniques
MC-1402-0042
IBM System 360 (OS) Data Management
MC-1402-0039
IBM System 360 OS FORTRAN IV Language (Entry-level)
MC-1402-0043
IBM System 360 OS FORTRAN Programming
MC-1402-0034
IBM System 360 OS PL/1 Programming
MC-1402-0035
IBM System 360 OS Programming
MC-1402-0030
IBM System 360 OS System Control
MC-1402-0033
IBM System 360 OS System Control and Data Management
MC-1402-0038
IBM System 360 (OS) Systems Programmer
MC-1402-0041
IBM System 360 OS Systems Programming
MC-1402-0032
System 360 Operating System—1401 Programming
MC-1402-0009
System 360 Operating System—Assembler Language Programming Phase
MC-1402-0008
System 360 Operating System—COBOL Programming Phase
MC-1402-0007
System 360 Operating System—Core Phase
MC-1402-0005
System 360 Operating System—Operations Phase
MC-1402-0006

Systems
Data Processing Systems Analysis, Class C
NV-1402-0001
Data Processing Technician, Class C, Systems Analysis and Design
NV-1402-0001
Systems Analysis and Design
MC-1402-0003
Systems Analysis and Design (Functional)
MC-1402-0010
Systems Programming
MC-1402-0015

T-1073A/A
T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B)
NV-1715-0192

T2C
T2C Power Plants and Related Systems Maintenance
NV-1704-0169

T53-L-11
UH-1E T53-L-11 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0025
UH-1E T53-L-11 Engine Organizational Maintenance
NV-1704-0018

T-53-L-13
T-53-L-13 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0150

T56-A-10/14
P-3 T56-A-10/14 Engine and Related Systems Organizational Maintenance
NV-1704-0019

T56-A-10W
P-3 T56-A-10W Engine and Related Systems Maintenance, No. 56
NV-1704-0017

T56-A-14
P-3 T56-A-14 Engine and Related Systems Maintenance
NV-1704-0019

T-56-A-16
KC-130F T-56-A-16 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0014

T-56-A-7
KC-130F T-56-A-7 Turboprop Engine and Related Systems Maintenance
NV-1704-0125
KC-130F T-56-A-7 Turboprop Engine and Related Systems Organizational Maintenance
NV-1704-0125

T56-A-8/8A
T56-A-8/8A Engine and A6441FN-248 Propeller
NV-1704-0029
T56-A-8/8A Engine and Aeroproducts A6441FN-248 Propeller Intermediate Maintenance
NV-1704-0029

T58-GE-10
T58-GE-10 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0027

T58-GE-8B
T58-GE-8B Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0021
T58-GE-8B Engine Maintenance Class C
CG-1704-0004

T58-GE-8F
T58-GE-8F Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0020

T-64-GE-413
CH-53 T-64-GE-413 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0032

T-64-GE-6/6A
H-53, T-64-GE-6/6A Intermediate Maintenance/Complete Engine Repair
NV-1704-0049

T76-G-10/12
OV-10A T76-G-10/12 Engine Intermediate/Complete Engine Repair Maintenance
NV-1704-0137

TA-4J
Prospective TA-4J Flight Instructor
NV-1606-0021
TA-4J Advanced Jet
NV-1606-0025

TACAN
A-4 Tactical Air Navigation (TACAN) AN/ARN-52(V)
NV-1715-0288
AN/ARN-21B/D TACAN Intermediate Maintenance
NV-1715-0518
AN/ARN-21D TACAN Navigation Set Maintenance
NV-1715-0487
AN/ARN-21D TACAN Receiver Maintenance
NV-1715-0487

AN/ARN-52(V) TACAN Receiver Intermediate Maintenance NV-1715-0519
AN/SRN-15 TACAN Distance Azimuth Measuring Equipment (DAME) Maintenance (Electronics Technician, Class C1) NV-1715-0175
AN/URN-20 TACAN Maintenance (Electronics Technician, Class C1) NV-1715-0193
CH-46A AN/ALQ-52(V) Navigational TACAN Maintenance MC-1715-0071
E-2A AN/ASQ-58 Integrated Electronic Central TACAN—RT-541/ASQ and KY-309/ASQ Power Supply—AM-2310/ASQ Intermediate Maintenance NV-1715-0375
Electronics Technician, Class C, TACAN Maintenance NV-1715-0197
F-4B AN/ASQ-19 TACAN System (RT-547 and KY-312) Intermediate Maintenance NV-1715-0394
F-4J AN/ARN-86 TACAN Intermediate Maintenance NV-1715-0409
F-8 AN/ARN-52 TACAN Intermediate Maintenance NV-1715-0204
P-3 AN/ARN-52 TACAN Maintenance, No. 30 NV-1715-0262
RT-736 and KY-531 TACAN (Tactical Air Navigation) Intermediate Maintenance NV-1715-0796
S-2D/E AN/ARN-52(V) Navigational TACAN Maintenance NV-1715-0637
TACAN Maintenance, Class C1 NV-1715-0197
UH-2A/B Tactical Air Navigation (TACAN) AN/ARN-52(V) NV-1715-0761

TACC
Tactical Air Command Central (TACC AN/TYQ-1) Repair MC-1715-0020
Tactical Air Command Central (TACC) Technician MC-1715-0046

Tactical
Airborne Tactical Data System Operations, Class O NV-1402-0036
Amphibious Tactical Air Control Party NV-2202-0006
AN/WSC-5 Tactical Satellite Communications System Maintenance NV-1715-0877
Basic Naval Tactical Data System (NTDS) Air Intercept Controller NV-1715-0674
Cryptologic Technician O, Tactical Communications Systems Operations and Management, Class C3 NV-1715-0849
Data Systems Technician (Shipboard Tactical Data Systems Officer and Senior Technician Maintenance) Class C NV-1402-0041
Data Systems Technician (Shipboard Tactical Data Systems Senior Technician) Class C NV-1402-0041
DD963 Naval Tactical Data System (NTDS) Data Utilization NV-1402-0023
DD963 Naval Tactical Data Systems (NTDS) Data Input NV-1402-0010
E-2B Airborne Tactical Data Systems NV-1704-0226
E-2B Airborne Tactical Data Systems (ATDS) Operator Training NV-1715-0777
E-2B Airborne Tactical Data Systems Operator (Naval Flight Officer) NV-1704-0225
Electronic Warfare Technician, Class A (A-4), Tactical Operations NV-1715-0782
Marine Corps Short Airfield For Tactical Support, Class C NV-1710-0014
Marine Tactical Data System (MTDS) Technician MC-1715-0043
Naval Tactical Data System (NTDS) Basic Programmer (Operational) NV-1402-0002
Naval Tactical Data System (NTDS)—Data Input—Basic NV-1715-0673
Naval Tactical Data System (NTDS)—Data Utilization—Basic NV-1402-0005
Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C NV-1402-0032
Naval Tactical Data System (NTDS) Tracker/Supervisor NV-1715-0673
Naval Tactical Data System Operations, Class O NV-1402-0037
Naval Tactical Data Systems Data Transmission Group Maintenance NV-1715-0273
Naval Tactical Data Systems Maintenance NV-1715-0274
Naval Tactical Data Systems (NTDS)—Data Collection and Display (Basic Enlisted) NV-1402-0003
Naval Tactical Data Systems (NTDS) Data Utilization NV-1402-0006
Naval Tactical Data Systems (NTDS) Evaluator/Supervisor NV-1402-0006
Naval Tactical Data Systems (NTDS) Intermediate Programmer Course (CS-1) NV-1402-0004
P3A/B VP Readiness Tactical Coordinator NV-2202-0041
P3C Tactical Coordinator Positional Training for Naval Flight Officers NV-1606-0043
Programming, Naval Tactical Data System (NTDS) Operational (Officer and Enlisted) NV-1402-0031
RT-736 and KY-531 TACAN (Tactical Air Navigation) Intermediate Maintenance NV-1715-0796
Shipboard Tactical Data Systems Maintenance NV-1402-0041
Tactical Air Command Central (TACC AN/TYQ-1) Repair MC-1715-0020
Tactical Air Command Central (TACC) Technician MC-1715-0046
Tactical Air Control Party NV-2202-0006
Tactical Air Operations Central Repairman (TAOCR) MC-1715-0053
Tactical Air Operations Central (TAOC) Analog Repair MC-1715-0023
Tactical Air Operations Central (TAOC AN/TYQ-2) Repair MC-1715-0053
Tactical Air Operations Central (TAOC) Digital Repair MC-1715-0018
Tactical Air Operations Central (TAOC) Weapons Controller/Operator MC-2204-0013
Tactical Air Operations Central Technician MC-1715-0082
Tactical Data Communications Central Repairman MC-1715-0077
Tactical Data Communications Central (TDCC AN/TYQ-3) Technician MC-1715-0026
Tactical Data Communications Central Technician MC-1715-0026
Tactical Data System Handling Repair MC-1715-0022
Tactical Data Systems Analysis NV-1402-0042
Tactical Data Systems Digital Repair MC-1715-0035
Tactical Data Systems Maintenance Officer/Program Officer NV-1402-0041
Tactical Electronic Warfare NV-1715-0768
Tactical General Purpose Computer Technician MC-1402-0045
Tactical Photographic Interpretation NV-1709-0011
Tactical Satellite Communications Equipment Maintenance AN/WSC-5(V) NV-1715-0877
VP CRAG Tactical Coordinator ASW Indoctrination, Equipments and Tactics NV-2202-0041

Talos
Talos Computer Mk 111 Mod 1 NV-1715-0634
Talos Computer Mk 111 Mod 1, Class C NV-1715-0419
Talos Guided Missile and Guided Missile Test Set Maintenance NV-1715-0622
Talos Gunner's (Missile) Handling NV-1715-0602
Talos Officers NV-1715-0608
Talos Radar AN/SPG-49B, Class C NV-1715-0282
Talos Radar AN/SPW-2B

NV-1715-0793

Talos Radar AN/SPW-2B, Class C NV-1715-0278

Talos Telemetering Data Reduction NV-2202-0082

Talos Weapon Direction System Mk 6 (WDE Mk 2) Class C NV-1715-0259

Talos Weapons/Fire Control/Missile Battery NV-1715-0608

Talos Weapons System Mk 77 Mod 2 (Class C) NV-1715-0444

Tank

Basic Tank Crewman MC-1710-0006

Tank/Amphibian Vehicle Officer (Reserve) MC-2204-0026

Tank/Amphibious Vehicle Officer MC-2204-0028

Tank Officers Orientation MC-2204-0027

Tank Unit Leaders (Enlisted) MC-1710-0009

Tank Vehicle Repairman MC-1703-0001

Tracked Vehicle Repairman, Tank MC-1703-0001

Tracked Vehicle Repairman, Tank, Basic MC-1703-0001

TAOC

Tactical Air Operations Central (TAOC) Analog Repair MC-1715-0023

Tactical Air Operations Central (TAOC AN/TYQ-2) Repair MC-1715-0053

Tactical Air Operations Central (TAOC) Data Handling Repair MC-1715-0019

Tactical Air Operations Central (TAOC) Digital Repair MC-1715-0018

Tactical Air Operations Central (TAOC) Weapons Controller/Operator MC-2204-0013

TAOC (AN/TYQ-2) Technician MC-1715-0082

Tape

Data Systems Technician RD-294/UYK Magnetic Tape Unit Maintenance, Class C NV-1715-0110

RD-358 Magnetic Tape Subsystem Accelerated MC-1715-0084

Target

Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization NV-2202-0099

Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis) NV-1715-0412

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5 NV-1715-0221

Fire Control Technician Class C, Gun Fire Control System Mk 56 and Target Designation System Mk 5 NV-1715-0216

Fire Control Technician Class C, Target Designation System Mk 6 NV-1715-0213

Fire Control Technician Class C, Target Designation System (TDS) Mk 5 NV-1715-0212

Photographic Interpretation/Radar Target Analysis NV-1606-0030

Polaris Target Card Computer System Mk 148 Mod 0 Maintenance, Class F1 NV-1715-0893

Polaris Target Card Computer System Mk 148 Mod 0 Theory, Class C1 NV-1715-0894

Polaris Target Card Computer System Peripheral Equipment, Class C1 NV-1715-0897

QH-50C Target Control System AN/SRW-4B Intermediate Maintenance NV-1715-0418

QH-50D Target Control System AN/SRW-4B Intermediate Maintenance NV-1715-0417

Radar (Target) Intelligence NV-1709-0015

Target Designation System Mk 5 Maintenance NV-1715-0264

Target Designation System Mk 5 Shipboard Maintenance NV-1715-0315

Target Drone, Class C NV-1704-0044

Underwater Fire Control Systems Technician (Target Motion Analysis Subsystem) NV-1715-0313

Tartar

Tartar Computer Mk 118 NV-1715-0343

Tartar Computer Mk 118 Mod 0 NV-1715-0343

Tartar DSOT Analysis Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0072

Tartar Fire Control and Missile Officer NV-1715-0703

Tartar Mk 152 Computer Complex NV-1715-0792

Tartar Radar AN/SPG-51B or Radar AN/SPG-51C, Class C NV-1715-0421

Tartar Radar Set AN/SPG-51C and Director Mk 73 Mod 1 NV-1715-0512

Tartar Radar Test Set Mk 474 Mod 2 NV-1715-0396

Tartar Weapon Direction Systems (WDS) Mk 4 Mod 0, Class C NV-1715-0437

Tartar Weapon Direction System (WDS) Mk 4, Class C NV-1715-0436

Tartar Weapons Control System NV-1715-0466

Tartar Weapons Officer NV-1715-0572

Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0681

Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7 NV-1715-0805

TDCC

Tactical Data Communications Central (TDCC AN/TYQ-3) Technician MC-1715-0026

TDS

Fire Control Technician Class C, Gun Fire Control System (GFCS) Mk 37 and Target Designation System (TDS) Mk 5 NV-1715-0221

Fire Control Technician Class C, Target Designation System (TDS) Mk 5 NV-1715-0212

Technical

Communications Technician "O" Branch, HFDF Communications Technical Control NV-1715-0800

Cryptologic Technician O, High Frequency Direction Finding (HFDF), Communications Technical Control, Class C1 NV-1715-0800

Electronics Technical Officer, Class O NV-1715-0345

High Frequency Direction Finding (HFDF) Communications Technical Control NV-1715-0800

Technical Instructor—Basic MC-1406-0011

Technician

Technician Theory MC-1715-0005

Technology

Special Technology I NV-1715-0905

Special Technology II NV-1715-0906

Special Technology III NV-1715-0907

Telegraph

AN/UCC-1 Series Telegraph Terminal Maintenance (Electronics Technician, Class C1) NV-1715-0009

AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System NV-1715-0249

Radio Telegraph Operator MC-1715-0070

Telemetering

Talos Telemetering Data Reduction NV-2202-0082

Telemetering Ground Station AN/SKQ-2 NV-1715-0791

Terrier Telemetering Data Reduction NV-2202-0083

Telemetry

QH-50D Operational Telemetry Maintenance NV-1715-0592

Telephone

AN/VCC-2, AN/VRC-46 and AN/SRA-60 Telephone-Telegraph Communication System NV-1715-0249

Automatic Electric—Strowger Switching Telephone Systems Maintenance, Class C1 NV-1715-0735

Dynalec Automatic Telephone System Maintenance, Class C1 NV-1404-0007

Stromberg Carlson Automatic Telephone XY Switching System Maintenance, Class C1 NV-1715-0661
Telephone Repair MC-1714-0004 MC-1715-0038
Telephone Switchboard Repair MC-1715-0073
Telephone System, Transportable AN/TTC-28 MC-1715-0016
Telephone Technician MC-1715-0012
Telephone Technician A School CG-1715-0002
Telephone Technician, Class A CG-1715-0002
Telephone Technician, Class B CG-1715-0003
Telephone Technician School CG-1715-0002
Telephone Technician Second Class by Correspondence CG-1715-0063
Telephone-Teletype Repair MC-1715-0013
Telephone Teletype Repair (Special) MC-1715-0028

Telephones
Automatic Telephones, Class C NV-1715-0546

Teletype
Electronic Teletype Repair MC-1715-0064
Model 28 ASR Teletype Maintenance NV-1715-0662
Telephone-Teletype Repair MC-1715-0013
Telephone Teletype Repair (Special) MC-1715-0028
Teletype Maintenance, Class C, Low Level Keying Teletype Maintenance NV-1715-0663
Teletype Operator MC-1404-0001
Teletype Repair MC-1715-0076

Teletypewriter
AN/UGC-20/25 Teletypewriter Set Maintenance NV-1715-0090
AN/UGC-20A/25A Teletypewriter Set Maintenance NV-1715-0090
Electronics Technician Class C, AN/FGC-73 Teletypewriter Routing Set and AN/UGR-14 Inktronic Page Printer NV-1715-0019
P-3TT-264/AG Teletypewriter Group Maintenance, No. 20 NV-1715-0666
Teletypewriter AN/UGC-20/25 Combined Maintenance NV-1715-0090
Teletypewriter Repair MC-1715-0076
Teletypewriter Reperforator TT-253/UG NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Teletypewriter Distributor TT187/UG Series NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines NV-1715-0664
Teletypewriter System (Afloat) Maintenance Models TT70A/UG and AN/UGC-5 TT-252 Typing Perforator NV-1715-0665
Teletypewriter TT-299 B/UG Watchstanders Refresher Maintenance NV-1706-0002
TT-299B/UG Teletypewriter Set Maintenance (Enlisted) NV-1715-0734

Television
Closed Circuit Television Maintenance, Class C1 NV-1715-0407
Closed Circuit Television Systems by Correspondence CG-1715-0064
P-3C AN/AXR-13 Low Light Level Television Camera Intermediate Maintenance NV-1715-0358
Radio and Television Production Specialist DD-0505-0001
Shipboard Information, Training and Entertainment (SITE) System Operators (Television Afloat) DD-0504-0010
Television Instructors NV-1406-0007

Tender
AN/BST-1 Tender Maintenance NV-1715-0588
Electronics Technician, Class C, FBM Tender Navigation Maintenance NV-1715-0182
Electronics Technician, Class C, SSBN NAVDAC FBM Tender Navigation Maintenance NV-1715-0168
Fire Control System Technician Mk 88 Mod 1 Tender Maintenance NV-1715-0205
Launcher Technician (Tender) NV-1710-0030
Submarine Tender Radiological Controls NV-1720-0001
Submarine Tender Radiological Controls (Enlisted) NV-0705-0005

Tenders
Storekeeper, Class C (Uniform Automated Procedures for Tenders and Repair Ships) NV-1402-0045

Terminal
AN/UCC-1 Series Telegraph Terminal Maintenance (Electronics Technician, Class C1) NV-1715-0009
E-2A AN/ACQ-2 and AN/ACQ-2A Data Terminal Sets Intermediate Maintenance NV-1715-0254
Introduction to Traffic and Terminal Management NV-0419-0014
Marine Terminal Management NV-0419-0012
Mobile Data Communications Terminal Technician MC-1715-0081
Terminal Equipment Repair MC-1715-0015
Terminal Equipment Theory MC-1715-0007

Terrain
Terrain Analysis DD-1601-0004

Terrier
DLG-16 (MOD) Terrier Weapons System NV-2202-0073
DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5 NV-2202-0073
Terrier AN/SPG-55B ASMD 70 Radar Update NV-1715-0801
Terrier ASMD-70 55B Radar Update NV-1715-0801
Terrier Computer Mark 119 Mod 5 NV-1715-0334
Terrier Computer Mark 119 Mod 5 (Fleet Inputs) NV-1715-0334
Terrier Computer Mk 100 Mod 2 NV-1715-0398
Terrier Computer Mk 119 Mods 3 and 4 NV-1715-0334
Terrier Fire Control and Missile Officer NV-1715-0328
Terrier Mark 152 Computer Complex NV-1715-0391
Terrier Missile Launcher System Repair MC-1715-0080
Terrier Missile Launcher System Repairman MC-1715-0080
Terrier Radar AN/SPQ-5A NV-1715-0291
Terrier Radar Set AN/SPG-55B Continuous Wave Acquisition and Tracking (CWAT) NV-1715-0693
Terrier Radar Set AN/SPG-55B Mod 5 NV-1715-0526
Terrier Radar Set AN/SPG-55B Mod 5 (Fleet Input) NV-1715-0597
Terrier/Tartar Guided Missile and Guided Missile Test Set Maintenance NV-1715-0467
Terrier/Tartar Gunner's Mate NV-1715-0603
Terrier Telemetering Data Reduction NV-2202-0083
Terrier Weapon Direction System Mk 3 (DE Mk 9) NV-1715-0649
Terrier Weapon Direction System Mk 7 (WDE Mk 8) NV-1715-0473
Terrier Weapons NV-1715-0605
Terrier Weapons System Missile Fire Control System (MFCS) Mk 73 NV-1715-0442
Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 NV-1715-0443
Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS) NV-1715-0658
Terrier Weapon System DLG-28 (Class System Level Maintenance)

NV-1715-0804

Test

A-6A AN/APQ-112 Track Radar Test Console and Detailed Radar Intermediate Maintenance NV-1715-0435

A-6A AN/APQ-92 Search Radar and Module Analyzer Test Bench Intermediate Maintenance NV-1715-0431

A-6 AN/ASN-31 Inertial Navigation System and Test Console Intermediate Maintenance NV-1715-0475

A-6A OA-6672/ASA-48 Universal Encoder Test Console Intermediate Maintenance NV-1715-0109

A-6A Track Radar and Module Analyzer Test Console Intermediate Maintenance NV-1715-0429

A-6 Ballistics Computer Test Console Intermediate Maintenance NV-1715-0342

A-6 Card Module Analyzer Test Console, AN/ASM-118, Intermediate Maintenance NV-1715-0336

A-6 Data Processing Unit and Associated Test Set Intermediate Maintenance NV-1715-0650

A-6 Electronic Module Test Console Intermediate Maintenance NV-1715-0451

A-6 Pilots Horizontal Display, Direct View Radar Indicator and Associated Test Set Intermediate Maintenance NV-1715-0297

A-6 Right Hand Unit Alignment Test Set, and Encoder Tape Dial Test Set Intermediate Maintenance NV-1715-0335

A-6 Search Radar Module Analyzer Test Console NV-1715-0530

A-6 Ship and Shore Inertial Platform Test Station Intermediate Maintenance NV-1715-0177

A-6 Track Radar Module Analyzer Test Console and Detailed Module Theory (Intermediate Level Maintenance) NV-1715-0429

A-7E AN/ASM-375 Inertial Measurement System Test Set Intermediate Maintenance NV-1715-0146

AN/ALM-108 Receiver Test Console AN/ALQ-99 Receivers Intermediate Maintenance NV-1715-0054

AN/ALM-109 Test Console and AN/ALQ-99 Tracking Receivers and Control Modulators Intermediate Maintenance NV-1715-0052

AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance NV-1715-0053

AN/APM 341 (V) Doppler Test Set Intermediate Maintenance NV-1715-0360

AN/AVM-11 (V) Head Up Display Test Set Intermediate Maintenance (A-7E) NV-1704-0229

AN/AWM-55(V) Armament Station Control Unit Test Set Intermediate Maintenance NV-1715-0174

E-2A Inertial Navigation System Semi-Automatic Check-Out Equipment (SACE) and Encoder Test Console Operation and Maintenance NV-1715-0323

Electronics Technician, Class C, AN/SSM-5 Monitor Test Set Maintenance NV-1715-0008

Maintenance Analysis Test Set (MATS) Mk 352, Class F1 NV-1715-0902

Missile Test and Readiness Equipment (MTRE) Mk 3 Measurement, Display and Simulation Groups Advanced Training NV-1715-0908

Missile Test and Readiness Equipment (MTRE) Mk 3 Mods 4 and 5 Measurement, Display and Simulation Groups Advanced Training, Class F1 NV-1715-0908

Missile Test and Readiness Equipment (MTRE) Mk 3 Programmer/Timer Digital Multimeter Advanced Training, Class C1 NV-1715-0884

OA-3731/ASM-76 Computer Detector Test Console Intermediate Maintenance NV-1715-0798

OA-3734/ASM-77 Ballistic Computer Test Console Intermediate Maintenance NV-1715-0548

Talos Guided Missile and Guided Missile Test Set Maintenance NV-1715-0622

Terrier/Tartar Guided Missile and Guided Missile Test Set Maintenance NV-1715-0467

Test Instrument Repairman MC-1715-0027

Test Equipment

A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment NV-1402-0044

A6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance NV-1715-0159

A-6 AN/APQ-112 Track Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0302

A-6 AN/APQ-92 Search Radar and Associated Test Equipment Intermediate Maintenance NV-1715-0596

A6A Programmer, Semi-Automatic Test Equipment Intermediate Maintenance NV-1715-0074

A-6 Associated Radar Test Equipment Intermediate Level Maintenance NV-1715-0406

AN/DPM-7 Sparrow III Guided Missile Test Equipment Intermediate Maintenance NV-1715-0628

AN/DSM-32 Sparrow III Guided Missile Test Equipment Intermediate Maintenance NV-1715-0446

Electronic Test Equipment Basic Operator, Class F1 NV-1715-0896

Electronic Test Equipment Operation NV-1715-0896

Electronic Test Equipment Operation/Operational Use NV-1715-0005

RA-5C AN/ASB-12 Verdan and Digital Test Equipment Intermediate Maintenance NV-1402-0044

RA-5C Semi-Automatic Test Equipment Air Data, Flight Reference, and Flight Control Intermediate Maintenance NV-1715-0542

RA-5C Semi-Automatic Test Equipment Bomb Director NV-1715-0547

RA-5C Semi-Automatic Test Equipment, Programmer and System Analyzer Intermediate Maintenance NV-1715-0238

Sparrow III Missile Test Equipment Maintenance Training-Depot Test Equipment of the AN/DPM-7 NV-1715-0628

Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance NV-1715-0619

Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore) NV-1715-0702

SUBROC Missile Mk 28 Mod 0 Test Equipment Intermediate Maintenance NV-1715-0795

Torpedo Mk 37 Mods 0, 2, and 3 Test Equipment Intermediate Maintenance NV-1715-0788

Torpedo Mk 45 Mods 1 and 2 Test Equipment Intermediate Maintenance NV-1715-0786

Testing

Nondestructive Testing of Metals NV-1724-0002

Test Set

A-6 BNCN and BNCB Test Set, Intermediate Maintenance NV-1715-0051

A-6 Bombardier Navigator Control Box and Associated Test Set, Intermediate Maintenance NV-1715-0051

TF30-P-6

TF30-P-6 Intermediate Maintenance/Complete Engine Repair NV-1704-0033

TF30-P-6/408

A-7A/B TF30-P-6/408 Power Plants and Related Systems Organizational Maintenance NV-1704-0135

TF30-P-8

TF30-P-8/408 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0016

TF30-P-8 Intermediate Maintenance/Complete Engine Repair NV-1704-0016

TF30-P-8/408

TF30-P-8/408 Engine Intermediate Maintenance/Complete Engine Repair NV-1704-0016

TF41-A-2

TF41-A-2 Engine Intermediate

Maintenance/Complete Engine Repair
NV-1704-0123

TF/AF-9J
Prospective Phase I CV (Jet) (TF/AF-9J) Tactical Flight Instructor
NV-1606-0037

TF/TAF-9J
Prospective TF/TAF-9J Flight Instructor
NV-1606-0039

Thai
Thai
DD-0602-0002
DD-0602-0003
DD-0602-0004

Theory
Basic Computer Theory
NV-1402-0038
Computer Theory, Basic
NV-1402-0038
Mardan Computer Theory and Maintenance I
NV-1715-0447
Mardan Computer Theory and Maintenance II
NV-1715-0448
Radar Theory and Maintenance by Correspondence
CG-1715-0065
Technician Theory
MC-1715-0005

Therapy
Occupational Therapy Technic
NV-0704-0003
Occupational Therapy Technician, Class C
NV-0704-0003
Physical and Occupational Therapy Technic
NV-0704-0002
Physical and Occupational Therapy Technician, Class C
NV-0704-0002
Physical and Occupational Therapy Technician, Phases I and II
NV-0704-0002
Physical Therapy Technic
NV-0704-0002
Physical Therapy Technician, Class C
NV-0704-0002

Thermal
Shipboard Thermal Insulation (Lagging)
NV-1710-0039

Throat
Eye, Ear, Nose and Throat Technician, Class C
NV-0709-0009

Timer
AN/FPN-38 Timer Synchronizer
CG-1715-0004
AN/FPN-41 Timer
CG-1715-0005
AN/FPN-46 Timer
CG-1715-0009

Tissue
Tissue Bank Technic
NV-0702-0005
Tissue Bank Technician, Class C
NV-0702-0005
Tissue Culture Technic
NV-0702-0001
Tissue Culture Technician, Class C
NV-0702-0001

TMA
Fire Control System (FCS) Mk 113 Mod 9 Target Motion Analysis (TMA) Operator/Familiarization
NV-2202-0099

Tool
Builder—Tool and Equipment Maintenance (BU "C")
NV-1002-0001
Machine Tool Operations
NV-1723-0001
Machine Tool Operator
NV-1723-0001

Topographic
Basic Topographic Officers
DD-1601-0012

Topography
Topography and Printing Staff Noncommissioned Officer (NCO)
DD-1601-0010

Torpedo
Torpedo Mk 37 Mods 0, 1, 2, and 3 Organizational Maintenance
NV-1715-0787
Torpedo Mk 37 Mods 0, 2, and 3 Intermediate Maintenance
NV-1715-0789
Torpedo Mk 37 Mods 0, 2, and 3 Test Equipment Intermediate Maintenance
NV-1715-0788
Torpedo Mk 45 Mods 1 and 2 Test Equipment Intermediate Maintenance
NV-1715-0786

Torpedoes
Fire Control System (FCS) Mk 113 Mod 9 (Torpedoes and Target Motion Analysis)
NV-1715-0412
Torpedoes Mk 14 Mod 5 and Mk 16 Mod 8 Intermediate Maintenance
NV-1601-0011
Torpedoes Mk 46 Mod 1, Mk 44 Mod 1, and AWTT Mk 32 Organizational Maintenance
NV-1715-0785
Underwater Fire Control System (FCS) Technician (Torpedoes) Mk 113 Mod 7
NV-1715-0760

Torpedoman's
Basic Electricity and Electronics for Torpedoman's Mate
NV-1715-0532

Torpedoman's Mate
Torpedoman's Mate, Class A
NV-1715-0718
NV-1715-0719
NV-1715-0720
Torpedoman's Mate, Class A, Intermediate Maintenance Prerequisite
NV-1715-0718
Torpedoman's Mate, Class A, Submarine
NV-1715-0720
Torpedoman's Mate, Class A, Submarine and Surface Prerequisite
NV-1715-0784
Torpedoman's Mate, Class A, Surface
NV-1715-0719

TOW
TOW Missile Maintenance
MC-1715-0075

Tower
Air Controlman T (Tower), Class A
NV-1704-0008
Bright Radar Indicator Tower
Equipment Maintenance, Class C
NV-1715-0276

Tracked
Advanced Tracked Vehicle Repairman
MC-1710-0007
Tracked Vehicle Maintenance Management
MC-1710-0022
Tracked Vehicle Maintenance Officer
MC-1703-0013
Tracked Vehicle Maintenance Officer/Staff Noncommissioned Officer Management
MC-1710-0022
Tracked Vehicle Repairman
MC-1703-0010
Tracked Vehicle Repairman Advanced
MC-1710-0007
Tracked Vehicle Repairman Amphibian Tractor
MC-1703-0011
Tracked Vehicle Repairman (Amphibian Vehicle)(Basic)
MC-1703-0011
Tracked Vehicle Repairman (ONTOS), Basic
MC-1703-0005
Tracked Vehicle Repairman Self-Propelled Artillery
MC-1703-0006
Tracked Vehicle Repairman (Self-Propelled Artillery), Basic
MC-1703-0006
Tracked Vehicle Repairman, Tank
MC-1703-0001
Tracked Vehicle Repairman, Tank, Basic
MC-1703-0001

Tracker
Naval Tactical Data System (NTDS) Tracker/Supervisor
NV-1715-0673

Tractor
Amphibian Tractor Crewman Training LVT3C, LVTP5
MC-1710-0005
Tracked Vehicle Repairman Amphibian Tractor
MC-1703-0011

Tradevman
Class A Tradevman School
NV-1715-0497
Tradevman, Class A
NV-1715-0497
Tradevman I (Instructor) Class A
NV-1406-0002
Tradevman R (Repairman) Class A
NV-1715-0495
Tradevman School, Class A
NV-1715-0497
Tradevman School, Class B
NV-1715-0598

Traffic
Air Controlman—Carrier Air Traffic Control Center Utilization—Operator
NV-1704-0220
Air Traffic Control Center Equipment Maintenance AN/TRN-28, Class C
NV-1715-0771
Air Traffic Control Electronics Maintenance Officers, Class O
NV-1715-0670
Air Traffic Control Officers, Class O
NV-1704-0003
Air Traffic Management
NV-0419-0013

Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35A and AN/SPN-35, Class C NV-1715-0713
Carrier Air Traffic Control Center Equipment Maintenance, AN/SPN-35, Class C NV-1715-0713
Freight Transportation and Traffic Management NV-0419-0008
Ground Controlled Approach/Radar Air Traffic Control Center Electronics Maintenance Officers, Class O NV-1715-0670
Introduction to Traffic and Terminal Management NV-0419-0014
Marine Air Traffic Control Communications Repairman, Class C NV-1715-0799
Marine Air Traffic Control Maintenance Supervisor Training, Class C NV-1715-0742
Marine Air Traffic Control Navigational Aids Maintenance NV-1715-0037
Marine Air Traffic Control Navigational Aids Repairman, Class C NV-1715-0037
Marine Air Traffic Control Unit Auxiliary Equipment Maintenance, Class C NV-1715-0669
Marine Air Traffic Control Unit Equipment Maintenance, Class C NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class C NV-1715-0039 NV-1715-0166
Marine Air Traffic Control Unit Maintenance Management, Class O NV-1715-0039
Marine Air Traffic Control Unit Radar Maintenance, Class C NV-1715-0038
Marine Air Traffic Control Unit Radar Repairman, Class C NV-1715-0038
Personal Property Traffic Management NV-0419-0011

Train
5"/54 Rapid Fire Mount Fuzesetter, Train and Elevation (Servo Amplifier System) NV-1715-0667

TRAM
Sonar AN/SQS-23 D–G Series (TRAM) Maintenance NV-1715-0864
Sonar AN/SQS-23 D–G Series TRAM, MIP, LORA Maintenance NV-1715-0864

Transceiver
AN/ARC-38A Single Side Band Transceiver Intermediate Maintenance NV-1715-0094
AN/ARC-38A SSB Transceiver Maintenance NV-1715-0486
AN/ARC-94 Radio Transceiver Intermediate Maintenance NV-1715-0100
AN/ARC-94 Single Side Band Transceiver Maintenance NV-1715-0489
AN/SRC-20 Radio Transceiver NV-1715-0089
F-4J RT-793/ASQ UHF Transceiver Intermediate Maintenance NV-1715-0701
Radio Transceiver AN/SRC-20 Maintenance NV-1715-0089
Radio Transceiver AN/WRC-1 Family Equipment NV-1715-0531
RT 648/698 (AN/ARC-94/102/105/119/120) HF Transceiver Intermediate Maintenance NV-1715-0373
RT-648/ARC-94 and RT-698/ARC-102 HF Transceiver Intermediate Maintenance NV-1715-0369
Transceiver AN/SRC-20 Combined Maintenance NV-1715-0089
Transceiver AN/URC-32 Maintenance (Enlisted) NV-1715-0229

Transistor
Advanced Transistor Theory NV-1715-0165

Transmission
Data Computation and Transmission Loops Fire Control System (FCS) Mk 80, Class C1 NV-1715-0895
Electronics Technician Class C, Data Transmission Group, Transmission Equipment Maintenance NV-1715-0026
UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems Maintenance NV-1704-0061

Transmissions
Construction Mechanic/Automatic Transmissions, Class C NV-1703-0003
UH-2C Power Plants, Fuel, Transmissions and Related Systems Organizational Maintenance NV-1704-0176

Transmitter
AN/ARC-131 Receiver Transmitter Intermediate Maintenance NV-1715-0188
AN/URT-23 Radio Transmitter With AN/URA-38 Antenna Coupler Maintenance (Electronics Technician, Class C1) NV-1715-0056
AN/URT-23(V) Radio Transmitter Maintenance NV-1715-0531
AN/WRT-2 Radio Transmitter Maintenance (Electronics Technician, Class C1) NV-1715-0011
Communications Transmitter Site Systems Maintenance, Class C1 NV-1715-0387
EA-6B Course Attitude Data Transmitter Intermediate Maintenance NV-1715-0192
Electronics Technician Class C, High Power Independent Single Sideband Transmitter (AN/FRT-39; AN/URT-19; AN/URA-30) NV-1715-0027
F-4J AN/AWG-10 Transmitter and Antenna Positioning Intermediate Maintenance NV-1715-0594
Relay Transmitter Mk 60 Mod 0 Maintenance—UFCG Mk 114 Mods 9–12 NV-1715-0389
Submarine Emergency Communications Transmitter (SECT) Buoy AN/BST-1 Maintenance NV-1715-0900
T-1073A/A Course Attitude Data Transmitter Intermediate Maintenance (EA-6B) NV-1715-0192
Transmitter AN/WRT-4 Combined Maintenance NV-1715-0250

Transmitters
AN/ALQ-99 Jamming Transmitters and AN/ALM-107 Countermeasures Test Station Intermediate Maintenance NV-1715-0053

Transmitting
Radio Transmitting Set AN/URT-23 (V) Maintenance (Enlisted) NV-1715-0378

Transponder
AN/APX-64(V) IFF Transponder Set Intermediate Maintenance NV-1715-0563
AN/APX-72 Series IFF Transponder System Maintenance NV-1715-0811
F-4B/J KY-532A/ASQ IFF Transponder Intermediate Maintenance NV-1715-0309
IFF Transponder AN/APX-72 and AN/UPX-17 Combined Maintenance, Class F1 NV-1715-0914
KY-532A/KY-533A IFF Transponder Intermediate Maintenance NV-1715-0184

Transport
Advanced Motor Transport MC-1703-0002
Amphibious Transport/Cargo Ship Embarkation NV-0419-0005
Motor Transport Chief MC-1703-0003
Motor Transport Maintenance Management MC-0419-0002
Motor Transport Officer MC-0419-0003
Motor Transport Officer Leadership MC-0419-0004
Motor Transport Officer Orientation MC-0419-0004
Motor Transport Staff Noncommissioned Officer (NCO) Leadership MC-1703-0016

Transportation
Freight Transportation and Traffic Management NV-0419-0008
Intermediate Transportation Management NV-0419-0010
Introduction to Transportation Management NV-0419-0006

Transportation and Storage of Hazardous Material
NV-0419-0007
Transportation Management
NV-0419-0008
Transportation Management Advanced
NV-0419-0009

Travel
Basic Travel Clerk
MC-1403-0005
Disbursing Clerk, Class C (Travel Payments)
NV-1408-0002

Treatment
Alcoholism Treatment Specialist (ATS)
NV-0801-0008

Triton
CCI-611 and Motorola Triton VHF-FM Transceivers
CG-1715-0057

Troop
Naval Gunfire Spotters (Troop Officers)
NV-2202-0064
Troop Naval Gunfire Spotter
NV-2202-0057

Troubleshooting
CONALOG (Norden) Refresher Maintenance and Troubleshooting
NV-1715-0253
F-4B Communication Navigation Identification (CNI) Line Troubleshooting Maintenance
NV-1704-0076
F-4J Communication Navigation Identification (CNI) Line Troubleshooting Maintenance
NV-1704-0074
RF-4B AN/ASQ-88 and AN/ASQ-108 Communication Navigation Identification (CNI) Line Troubleshooting Maintenance
NV-1715-0357
Solid State Circuit Troubleshooting Techniques
NV-1715-0149

TS-2A
Prospective ME (Prop) Flight Instructor (TS-2A Type Aircraft)
NV-1606-0020

TT-187/UG
Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines
NV-1715-0664

TT-252
Teletypewriter System (Afloat) Maintenance Models TT70A/UG and AN/UGC-5 TT-252 Typing Perforator
NV-1715-0665

TT-253/UG
Teletypewriter Reperforator TT-253/UG
NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Teletypewriter Distributor TT187/UG Series
NV-1715-0664
Teletypewriter Reperforator TT-253/UG Series and Transmitter Distributor TT-187/UG Series Teletype machines
NV-1715-0664

TT-253/UGC
Teletype Reperforator TT-253/UGC Combined Maintenance
NV-1715-0664

TT-299 B/UG
Teletypewriter TT-299 B/UG Watchstanders Refresher Maintenance
NV-1706-0002
TT-299B/UG Teletypewriter Set Maintenance (Enlisted)
NV-1715-0734

TT70A/UG
Teletypewriter System (Afloat) Maintenance Models TT70A/UG and AN/UGC-5 TT-252 Typing Perforator
NV-1715-0665

Tuner
AN/ALQ-86 Mid-Band Tuner Intermediate Maintenance
NV-1715-0060

Turbine
DD963 Basic Circuit Concepts for Gas Turbine Controls, Class C1
NV-1402-0020
Enginemen, Class C, Marine Gas Turbine Basic
NV-1710-0066
Enginemen, Gas Turbine Engines, Class C
NV-1703-0002
Gas Turbine by Correspondence
CG-1731-0002
General Electric LM100 and Solar T-1000 Emergency Gas Turbine Solar Main Propulsion Operation and Maintenance
CG-1710-0007
LM2500 Gas Turbine Module Maintenance, Class C1
NV-1703-0008
Marine Gas Turbine Basic, Class C1
NV-1710-0066
Pratt and Whitney FT4A Gas Turbine Engine Operation and Maintenance
CG-1710-0006
Ship's Service Gas Turbine Generator Module (Allison 501) Maintenance, Class C1
NV-1703-0009

Turbo-Jet
Aviation Machinist's Mate J (Turbo-Jet), (Class A)
NV-1704-0148

Turboprop
KC-130F T-56-A-7 Turboprop Engine and Related Systems Maintenance
NV-1704-0125
KC-130F T-56-A-7 Turboprop Engine and Related Systems Organizational Maintenance
NV-1704-0125

Turkish
Turkish
DD-0602-0001
DD-0602-0002
DD-0602-0003
DD-0602-0004
DD-0602-0009

Turret
Aviation Ordnanceman (Turret), Class A
NV-1714-0007
Turret Repairman
MC-1710-0008
MC-1710-0028

TV
Closed Circuit TV Maintenance, Class C1
NV-1715-0189

Typewriter
Ships Inertial Navigation System (SINS) Mk 2 Mod 6 Selectric Typewriter, Class F1
NV-1715-0916
SINS Mk 2 Mod 6 Selectric Typewriter Advanced Maintenance
NV-1715-0916

Typing
Typing and General Office Procedures (Women)
MC-1409-0001

UDT-SEAL
UDT-SEAL Explosive Ordnance Disposal Indoctrination
NV-2202-0018

UH-1E
UH-1E Airframe and Related Systems Intermediate Maintenance
NV-1704-0043
UH-1E Airframe and Related Systems Organizational Maintenance
NV-1704-0043
UH-1E T53-L-11 Engine Intermediate Maintenance/Complete Engine Repair
NV-1704-0025
UH-1E T53-L-11 Engine Organizational Maintenance
NV-1704-0018

UH-1N
UH-1N Electrical Systems Organizational Maintenance
NV-1704-0207
UH-1N Power Package Organizational Maintenance
NV-1704-0204
UH-1N Powertrain and Rotors Organizational Maintenance
NV-1704-0175

UH-2A
UH-2A AN/APN-130 Radar Navigation Equipment
NV-1715-0432

UH-2A/B
UH-2A/B AN/ASA-13A Navigational Computer Group Intermediate Maintenance
NV-1715-0326
UH-2A/B Automatic Stabilization Equipment Intermediate Maintenance
NV-1715-0464
UH-2A/B Automatic Stabilization Equipment Maintenance
NV-1715-0464
UH-2A/B Automatic Stabilization Equipment Organizational Maintenance
NV-1715-0464
UH-2A/B Electrical System Maintenance
NV-1704-0091
UH2-A/B Power Plant, Transmission, Fuel, Rotor and Related Systems Maintenance
NV-1704-0061
UH-2A/B Tactical Air Navigation (TACAN) AN/ARN-52(V)
NV-1715-0761

UH-2C
UH-2C Airframes, Hydraulic, Flight Controls and Rotor Systems Organizational Maintenance
NV-1704-0057
UH-2C Automatic Stabilization Equipment Intermediate Maintenance
NV-1715-0610

UH-2C Electrical System Organizational Maintenance NV-1704-0090
UH-2C, HH-2C and HH-2D Power Plants and Related Systems Organizational Maintenance NV-1704-0141
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Intermediate Maintenance NV-1715-0610
UH-2C, HH-2C, HH-2D Automatic Stabilization Equipment Organizational Maintenance NV-1715-0683
UH-2C Power Plants, Fuel, Transmissions and Related Systems Organizational Maintenance NV-1704-0176

UH34D
UH34D Airframe, Hydraulics and Flight Controls NV-1704-0064

UHF
AN/ARC-27 UHF Radio Set Intermediate Maintenance NV-1715-0351
E-2A AN/ASQ-58 Integrated Electronic Central UHF-RT-542/ASQ and RT-559/ASQ Power Supply-AM-2310/ASQ Intermediate Maintenance NV-1715-0746
F-4J RT-793/ASQ UHF Transceiver Intermediate Maintenance NV-1715-0701
P-3 AN/ARC-52 UHF Communications Systems Maintenance, No. 21 NV-1715-0346

Ukrainian
Ukrainian DD-0602-0002

Underwater
Basic Underwater Demolition/Seal Team Training NV-1606-0007
Basic Underwater Demolition/Seal Training NV-1606-0007
Mark 105 Underwater Fire Control System (UWFCS) Mod 28 NV-1715-0675
Underwater Demolition Training NV-1606-0007
Underwater Demolition Training (Enlisted) NV-1606-0007
Underwater Demolition Training (Officer) NV-1606-0007
Underwater Fire Control Group Mk 111 Maintenance NV-1715-0119
Underwater Fire Control Group Mk 114 Maintenance NV-1715-0133
Underwater Fire Control System (FCS) Technician (Torpedoes) Mk 113 Mod 7 NV-1715-0760
Underwater Fire Control Systems Technician (Mk 113 Mod 9) NV-1715-0313
Underwater Fire Control Systems Technician (Target Motion Analysis Subsystem) NV-1715-0313
Underwater Photographer/Scuba Diver NV-1606-0013

Uniform
Storekeeper, Class C (Uniform Automated Procedures for Tenders and Repair Ships) NV-1402-0045

Unit
Marine Air Traffic Control Unit Equipment Maintenance, Class C NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class C NV-1715-0039
Marine Air Traffic Control Unit Maintenance Management, Class O NV-1715-0039
Marine Air Traffic Control Unit Radar Maintenance, Class C NV-1715-0038
Marine Air Traffic Control Unit Radar Repairman, Class C NV-1715-0038
Radio Aids Unit (Device 1-D-5), Class C NV-1715-0372
Unit Supply Officer MC-1405-0017

UNIVAC
UNIVAC 1218/418/490-CP-789/UYK-5(V) System Programming Course (COBOL Language), Class C NV-1402-0030

UNREP
Electrical Component Maintenance (UNREP) NV-1715-0025
UNREP Electrical Component Maintenance United Controls NV-1715-0025
UNREP Hydraulic and Mechanical Component Maintenance (Sending Units) NV-1710-0016
UNREP Rigging Procedures NV-1710-0015

Urologic
Urologic Technic NV-0702-0004
Urologic Technician), Class C NV-0702-0004

Urological
Urological Technic NV-0702-0004
Urological Technician NV-0702-0004
Urological Technician, Class C NV-0702-0004

USER
Naval Tactical Data System (NTDS) Evaluator/Supervisor (USER) Class O/C NV-1402-0032

UT"A"
Utilitiesman, Class A1 (UT"A") NV-1732-0006

Utilities
P-3 Air Conditioning, Pressurization and Utilities Organizational Maintenance NV-1701-0001
Utilities Chief MC-1710-0014
Utilities Officer MC-1701-0001
Utilities Officers MC-1710-0015

Utilitiesman
Utilitiesman, Class A1 (UT"A") NV-1732-0006
Utilitiesman, Class B NV-1710-0036
Utilitiesman, Class J (UT"J") NV-1710-0036
Utilitiesman, Shore Based Boiler Controls, Class C NV-1710-0027

Utility
Aviation Boatswain's Mate U (Utility), Class A NV-1728-0013
Aviation Ordnanceman (Utility), Class A NV-1714-0006

Utilization
Naval Tactical Data System (NTDS)—Data Utilization—Basic NV-1402-0005
NTDS Data Utilization NV-1402-0005

UT"J"
Utilitiesman, Class J (UT"J") NV-1710-0036

UWFCS
Mark 105 Underwater Fire Control System (UWFCS) Mod 28 NV-1715-0675

V71 Series
Detroit Diesel V71 Series Engine Maintenance, Class C1 NV-1712-0019

Vapor
Submarine Low Pressure and Vapor Compression Distilling Units, Enlisted NV-1710-0025

Variable
AN/SQA-13 (V) Independent Variable Depth Sonar Operation and Maintenance NV-1715-0772

Vehicle
Advanced Tracked Vehicle Repairman MC-1710-0007
Amphibian Vehicle Crewman MC-1708-0001
Amphibian Vehicle Officer MC-2204-0002
Amphibian Vehicle Repairman MC-1703-0011
Amphibious Vehicle Company Officer MC-2204-0041
Amphibious Vehicle Officer Orientation MC-2204-0025
Amphibious Vehicle Unit Leader MC-1710-0010
Amphibious Vehicle Unit Leaders (Enlisted) MC-1710-0010
Assault Amphibian Vehicle Crewman MC-1708-0001
Assault Amphibious Vehicle Unit Leader MC-1710-0010
Motor Vehicle Operator MC-2101-0001
Motor Vehicle Operators MC-2101-0001
ONTOS Vehicle Repairman MC-1703-0005
Self-Propelled Vehicle Repairman MC-1703-0006
Tank/Amphibian Vehicle Officer (Reserve) MC-2204-0026

Tank/Amphibious Vehicle Officer
MC-2204-0028
Tank Vehicle Repairman
MC-1703-0001
Tracked Vehicle Maintenance Management
MC-1710-0022
Tracked Vehicle Maintenance Officer
MC-1703-0013
Tracked Vehicle Maintenance Officer/Staff Noncommissioned Officer Management
MC-1710-0022
Tracked Vehicle Repairman
MC-1703-0010
Tracked Vehicle Repairman Advanced
MC-1710-0007
Tracked Vehicle Repairman Amphibian Tractor
MC-1703-0011
Tracked Vehicle Repairman (Amphibian Vehicle)(Basic)
MC-1703-0011
Tracked Vehicle Repairman (ONTOS), Basic
MC-1703-0005
Tracked Vehicle Repairman Self-Propelled Artillery
MC-1703-0006
Tracked Vehicle Repairman (Self-Propelled Artillery), Basic
MC-1703-0006
Tracked Vehicle Repairman, Tank
MC-1703-0001
Tracked Vehicle Repairman, Tank, Basic
MC-1703-0001

Verdan
A-5A RA-5C AN/ASB-12 Verdan and Digital Test Equipment
NV-1402-0044
RA-5C AN/ASB-12 Verdan and Digital Test Equipment Intermediate Maintenance
NV-1402-0044
Verdan Computer Theory and Maintenance I
NV-1715-0923
Verdan Computer Theory and Maintenance II
NV-1715-0924
Verdan Theory and Maintenance, Class F1
NV-1715-0924
Verdan Theory and Maintenance I, Class F1
NV-1715-0923

Vertical
A6A AN/AVA-1 Vertical Display Indicator Group and Associated Test Equipment Intermediate Level Maintenance
NV-1715-0159

VHF
AN/ARC-54 VHF Communication Set Intermediate Maintenance
NV-1715-0098

VHF-FM
CCI-611 and Motorola Triton VHF-FM Transceivers
CG-1715-0057

Vibration
Noise and Vibration Measurement
NV-1721-0003
Sound Analysis, Noise and Vibration Reduction (Enlisted)
NV-1721-0010

Video
Electronic Warfare Technician, Class C, Radar Data Recorder-Reproducer AN/SPH-2 and Video Recorder-Reproducer 15-E-27 Maintenance
NV-1715-0296

Vietnam
Intelligence Advisor Vietnam
NV-1606-0001
Intelligence Officer, Vietnam
NV-1606-0003
Intercultural Relations—Vietnam Advisor Training
NV-1513-0003
Naval Field Intelligence Officer, Vietnam
NV-1606-0003
Vietnam Orientation
NV-2202-0010
NV-2202-0011

Vietnamese
Aural Comprehension Vietnamese—Hanoi Dialect
DD-0602-0010
Basic Vietnamese
DD-0602-0011
Basic Vietnamese—Saigon Dialect
DD-0602-0010
High Intensity Language Training (Vietnamese)
MC-0602-0001
Short Basic Vietnamese—Saigon Dialect
DD-0602-0010
Vietnamese
DD-0602-0005
DD-0602-0006
Vietnamese—Hanoi Dialect
DD-0602-0002
DD-0602-0003
DD-0602-0009
Vietnamese—Saigon Dialect
DD-0602-0002
DD-0602-0004
DD-0602-0009

Visual
Catapult, Arresting Gear and Visual Landing Aids (C-13 Catapult and Mk-7 Arresting Gear), Class C
NV-1710-0006
Catapult, Arresting Gear, and Visual Landing Aids (C-7/C-11 Catapults and Mk-7 Arresting Gear), Class C
NV-1710-0005
Catapult, Arresting Gear and Visual Landing Aids CVA (C-13 Catapults), Class C
NV-1710-0006
Catapult, Arresting Gear, and Visual Landing Aids CVA (C-7/11 Catapults), Class C
NV-1710-0005
Catapult, Arresting Gear and Visual Landing Aids (CVS) (H-8 Catapults and Mk-5 Arresting Gear)
NV-1710-0029
CVS Catapult, Arresting Gear, and Visual Landing Aids, Class C.
NV-1710-0007

VP CRAG
VP CRAG Enlisted Aircrewman ASW Indoctrination and Equipments
NV-2202-0044
VP CRAG Pilot ASW Indoctrination, Equipments and Tactics
NV-2202-0040
VP CRAG Tactical Coordinator ASW Indoctrination, Equipments and Tactics
NV-2202-0041

VS AW
VS AW Sensor Operator S2G
NV-1715-0517

VS CRAG
VS CRAG Enlisted Aircrewman ASW Indoctrination and Equipments
NV-2202-0039
VS CRAG Pilot ASW Indoctrination, Equipments, and Tactics—S-2D Aircraft
NV-2202-0043
VS CRAG Pilot ASW Indoctrination, Equipments, and Tactics—S-2E Aircraft
NV-2202-0042

Walleye
A-4 Walleye Weapon Delivery System
NV-1715-0733
Sparrow III, Sidewinder, Shrike and Walleye Guided Missile Test Equipment (CVA/CVS) Intermediate Maintenance
NV-1715-0619
Sparrow III, Sidewinder, Shrike, and Walleye Guided Missile Test Equipment, Intermediate Maintenance (Shore)
NV-1715-0702

War
Defense Economics and Decision Making Self-Administered Seminar (Naval War College)
NV-1511-0008
National War College
DD-1511-0002
Naval War College Correspondence Course in Defense Economics and Decision Making
NV-1511-0005
Naval War College Correspondence Course in Strategy and Policy
NV-1511-0004
Strategy and Policy Self-Administered Seminar (Naval War College)
NV-1511-0009

Warehouse
Warehouse Operations Management
NV-1717-0007

Warehousing
Advanced Warehousing
MC-1405-0013
Officers Warehousing
MC-1405-0016
Warehousing NCO Leadership
MC-1405-0002
Warehousing Noncommissioned Officer (NCO) Leadership
MC-1405-0002
Warehousing Staff Noncommissioned Officer (NCO) Leadership
MC-1405-0013

Warfare
ABC Warfare Defense Afloat
NV-0802-0008
Amphibious Warfare Indoctrination
NV-2202-0045
Aviation Antisubmarine Warfare (AASW) for First Tour Pilots, P3C
NV-1606-0028
Aviation Antisubmarine Warfare (AASW) for Naval Flight Officers P3A/B(D)
NV-1715-0555
Aviation Antisubmarine Warfare (AASW) for Second Tour Pilots, P3A/

B(D)
NV-2202-0032
Aviation Antisubmarine Warfare (AASW) Nonacoustic Operator P3C
NV-1715-0696
Aviation Antisubmarine Warfare (AASW) operator, Class A
NV-1715-0536
Aviation Antisubmarine Warfare (AASW) Sensor Station Three Operator, P3C
NV-1715-0696
Aviation Antisubmarine Warfare (AASW) Technician, Class A
NV-1715-0154
Carrier Aviation Antisubmarine Warfare (AASW) Acoustic Operator (Passive)
NV-2202-0096
College of Naval Warfare
NV-1511-0002
Combat Sensor Warfare Training
NV-2202-0071
Helicopter Aviation Antisubmarine Warfare Air Sonar Operator (AN/AQS-13)
NV-2202-0080
Helicopter (HS) Antisubmarine Warfare Operator
NV-2202-0080
Mine Warfare Engineman Basic
NV-1703-0005
Mine Warfare Packard Diesel Engineman (Class C)
NV-1712-0012
Mine Warfare Waukesha Diesel Engineman, Class C
NV-1712-0004
Naval Warfare Course
NV-1511-0002
Nuclear, Biological and Chemical (NBC) Warfare Defense Ashore
NV-0801-0005
School of Naval Warfare
NV-1511-0002
Surface Warfare Officer School
NV-2202-0027

Warrant
Marine Warrant Officer, Basic
MC-2204-0004
Surface Warrant Officer Indoctrination
NV-1408-0011
Warrant Officer Candidate
MC-2204-0009
Warrant Officer Candidate Screening
MC-2204-0009
Warrant Officer Indoctrination
NV-1408-0011
Warrant Officer Personnel Administration
MC-1406-0006
Warrant Officer (WO) Aviation Indoctrination
NV-2202-0016

Washer
Cascadex 100 Pound Washer/Extractor Maintenance, Class C
NV-1702-0001

Watch
Combat Information Center (CIC) Watch Officer, Class O
NV-2202-0074
Engineering Watch Officer
NV-1710-0012
Instrumentmen—Watch Repair
NV-1721-0005
Sonar Watch Supervisor and Advanced Watchstander Training
NV-2202-0012
Watch and Clock Repair, Class C
NV-1721-0005

Watchstander
Basic Navigation Watchstander
NV-1715-0125
Navigational Technician Watchstander (Enlisted)
NV-1715-0125
Sonar Watch Supervisor and Advanced Watchstander Training
NV-2202-0012

Watchstanders
Teletypewriter TT-299 B/UG Watchstanders Refresher Maintenance
NV-1706-0002

Water
Basic Plumbing and Water Supply Man
MC-1710-0013
EO"C" Water Well Drilling and Development
NV-1601-0004
Equipment Operators, Water Well Drilling and Development, Class C
NV-1601-0004
Journeyman Plumbing and Water Supply Man
MC-1710-0012
Plumbing and Water Supply Journeyman
MC-1710-0012
Plumbing and Water Supply Man
MC-1710-0013
Water Safety/Survival Instructor
MC-0803-0002

Waukesha
Mine Warfare Waukesha Diesel Engineman, Class C
NV-1712-0004
Waukesha Diesel Engine
NV-1712-0001

WDE
Talos Weapon Direction System Mk 6 (WDE Mk 2) Class C
NV-1715-0259
Terrier Weapon Direction System Mk 7 (WDE Mk 8)
NV-1715-0473

WDS
Tartar Weapon Direction Systems (WDS) Mk 4 Mod 0, Class C
NV-1715-0437
Tartar Weapon Direction System (WDS) Mk 4, Class C
NV-1715-0436
Weapons Direction System (WDS) Mk 7 Mod 3 (6-Year Obligor)
NV-1715-0414
Weapons Direction System (WDS) Mk 7 Mod 3 (Career)
NV-1715-0413

Weapon
2F69D P-3 Weapon System Follow-on-Training
NV-2202-0078
2F87 P-3 Weapon System Follow-on-Training
NV-2202-0079
A-4 Walleye Weapon Delivery System
NV-1715-0733
Data Systems Technician, Class C, Weapon Direction System Mk XI Mod 0/1 Maintenance Training
NV-1715-0385
E-2A Weapon System Specialist
NV-1715-0459
E-2A Weapon System Special, No. 5
NV-1715-0459
E-2B Weapon System Specialist Organizational Maintenance
NV-1715-0757
E-2B Weapon System Trainer (WST)
NV-1704-0232
F-4J Weapon System Specialist Organizational Maintenance
NV-1715-0308
Talos Weapon Direction System Mk 6 (WDE Mk 2) Class C
NV-1715-0259
Tartar Weapon Direction Systems (WDS) Mk 4 Mod 0, Class C
NV-1715-0437
Tartar Weapon Direction System (WDS) Mk 4, Class C
NV-1715-0436
Terrier Weapon Direction System Mk 3 (DE Mk 9)
NV-1715-0649
Terrier Weapon Direction System Mk 7 (WDE Mk 8)
NV-1715-0473
Terrier Weapon System DLG-28 (Class System Level Maintenance)
NV-1715-0804
Weapon System Specialist (Crew Leader) Maintenance
NV-1715-0410

Weapons
A-4 Conventional Weapons Training
NV-2202-0077
A-6A Conventional Weapons
NV-2202-0015
A-6A Weapons System Specialist
NV-1715-0272
A-6A Weapons System Specialist Organizational Maintenance
NV-1715-0691
A-6 Weapons System Specialist Organizational Maintenance
NV-1715-0272
A-7A/B Integrated Avionics Weapons System Technician Organizational Maintenance
NV-1715-0450
Advanced Undersea Weapons Circuits
NV-1715-0717
Air Launched Weapons Guided Missile Intermediate Maintenance
NV-1715-0589
Artillery Weapons Repairman
MC-1601-0005
MC-1710-0011
MC-2204-0022
Artillery Weapons Repairman (Advanced)
MC-1710-0027
Artillery Weapons Repairman (Basic)
MC-1710-0011
Atomic Weapons Employment
MC-2204-0036
Aviation Support Equipment Weapons Loaders Hydraulic Systems Intermediate Level Maintenance
NV-1704-0110
Basic Undersea Weapons Circuits
NV-1715-0716
CVA/CVS Air Launched Weapons
NV-0802-0009
CVA/CVS Air Launched Weapons

General Ordnance NV-2202-0024
CVA/CVS Air Launched Weapons Supervisor NV-0802-0009
CVS/MAUW Shop Nuclear Weapons Technical NV-0802-0005
DLG-16 (MOD) Terrier Weapons System NV-2202-0073
DLG 6-16 (MOD) Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 Mod 5 NV-2202-0073
F-14 Weapons System Technician Organizational Maintenance NV-1704-0214
Gunnery Officers—Weapons Department Officers NV-1715-0625
Infantry Weapons Armorer MC-1601-0006
MC-2204-0020
Infantry Weapons Armorer (Basic) MC-2204-0052
Infantry Weapons Armorers (Advanced) MC-2204-0044
Integrated Avionics Weapons System Specialist NV-1715-0266
Integrated Avionics Weapons System Technician NV-1715-0267
Marine NOP (Nuclear Weapons Training for Nuclear Ordnance Platoon Personnel) NV-2202-0100
Mk 80 Weapons Officer NV-1715-0606
Naval Air Weapons Systems Orientation, Class O NV-1715-0743
Navy Nuclear Weapons Advanced Maintenance NV-2202-0086
Navy Nuclear Weapons Electronics, Calibration, and Maintenance (EC) (Gunner's Mate Technician) NV-1715-0171
Nuclear and Chemical Weapons Employment MC-2204-0036
Nuclear, Biological, and Chemical (NBC) Weapons Employment MC-2204-0036
Nuclear Weapons Disposal NV-0802-0007
Nuclear Weapons Disposal Advanced Refresher NV-0802-0002
Nuclear Weapons Employment MC-2204-0036
Nuclear Weapons Technical (CVA) NV-0802-0006
QH-50C Weapons System Intermediate Electronics Maintenance NV-1715-0568
QH-50D Weapons System Electronic Intermediate Maintenance NV-1715-0633
SSBN Command Weapons System Orientation—Polaris NV-1715-0573
SWS (Strategic Weapons System) Command Polaris NV-1715-0573
SWS (Strategic Weapons System) Weapons Officer Polaris NV-1715-0606
Talos Weapons/Fire Control/Missile Battery NV-1715-0608
Talos Weapons System Mk 77 Mod 2 (Class C) NV-1715-0444
Tartar Weapons Officer NV-1715-0572
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mod 0 NV-1715-0681
Tartar Weapons System Missile Fire Control System (MFCS) Mk 74 Mods 6 and 7 NV-1715-0805
Terrier Weapons NV-1715-0605
Terrier Weapons System Missile Fire Control System (MFCS) Mk 73 NV-1715-0442
Terrier Weapons System Missile Fire Control System (MFCS) Mk 76 NV-1715-0443
Terrier Weapons Systems with Digital Fire Control Systems (MFCS Mk 76-6/AFCS) NV-1715-0658
Weapons Delivery System (Officers) NV-2202-0047
Weapons Direction System (WDS) Mk 7 Mod 3 (6-Year Obligor) NV-1715-0414
Weapons Direction System (WDS) Mk 7 Mod 3 (Career) NV-1715-0413
Weapons Employment MC-2204-0036
Weapons Location Equipment Repair MC-1715-0050
Weapons Repair Officer MC-1710-0023
Weapons Repair Shop Machinist MC-1723-0004
Weapons Systems Technician (Crew Member) Organizational Maintenance NV-1715-0411
Weapons Technician MC-1710-0029

Weapons Control
F-4B/J Armament, Missile and Weapons Control System Maintenance NV-1715-0632
F-4B/J Armament, Missile and Weapons Control System Organizational Maintenance NV-1715-0632
Tartar Weapons Control System NV-1715-0466

Weapons Controller
Marine Tactical Data System (MTDS) Weapons Controller/Operator MC-1715-0021
Tactical Air Operations Central (TAOC) Weapons Controller/Operator MC-2204-0013
Weapons Controller/Operator MC-2204-0013

Weather
All Weather Carrier Landing System Equipment Maintenance, AN/SPN-42, Class C NV-1715-0286
AN/APN-195 Weather Radar Systems Class C CG-1715-0025
Cold Weather Field Indoctrination MC-0803-0003
Cold Weather Field Indoctrination Training for FMF Cadets and Reservists MC-0803-0003
Weather Briefer CG-1304-0009

Welder
Nuclear Power Plant Components Welder, Class C NV-1710-0069

Welders
Fuel Gas Welders NV-1710-0052
High Pressure Pipe Welders NV-1710-0051
Pipe Welders NV-1710-0050
Plate Welders, Class C NV-1710-0044
Pressure Hull Welders NV-1710-0049
Welders MC-1710-0021

Welding
Advanced Welding NV-1710-0055
Damage Controlman Welding, Class C CG-1710-0002
Damage Control Welding, Class C CG-1710-0002
Intermediate Welding NV-1710-0054
Maintenance of Welding Qualifications NV-1710-0047
Stainless Steel Welding (Requalification) NV-1710-0047
Stainless Steel Welding Requalification—Phase I (Enlisted) NV-1710-0045
Stainless Steel Welding Requalification—Phase III (Enlisted) NV-1710-0048
Steelworker, Maintenance Welding Techniques, Class C NV-1710-0068
SW"C" Maintenance Welding NV-1710-0068
SW"C" Welding Certification NV-1710-0053
Welding Course I NV-1710-0054
Welding Course II NV-1710-0055
Welding for Nuclear Power Plant Operators, Course V NV-1710-0046

Well
EO"C" Water Well Drilling and Development NV-1601-0004
Equipment Operators, Water Well Drilling and Development, Class C NV-1601-0004

Wideband
Bullseye Wideband Maintenance Technician, Class 3 NV-1715-0830
Cryptologic Technician M, Bullseye Wideband Maintenance NV-1715-0830
Electronics Technician, Class C,

Wideband Synthesized Independent Sideband Receiver
NV-1715-0523

Winter
Mountain Leadership Training, Winter
MC-2204-0006

Wire
Wire Chief
MC-1714-0005

Wireman
Field Wireman (FWMC)
MC-1714-0007

Woman
Woman Marine Noncommissioned Officer (NCO) Leadership
MC-2204-0018
Woman Marine Officer's Personnel Administration
MC-1408-0005
Woman Officer Basic
MC-2204-0035
Woman Officer Candidate
MC-2204-0024

Women
Basic Military Training (Women)
MC-2204-0046
Naval School, Officer Women (Reserve)
NV-2202-0095
Physical Training Instructor (Women)
MC-1406-0002
Recruit Training (Women)
MC-2204-0046
Typing and General Office Procedures (Women)
MC-1409-0001
Women Officer Candidate School
NV-2202-0093
Women Officers Indoctrination
MC-1408-0012
Women Officers Training (Senior)
MC-2204-0003
Women Officer Training (Junior)
MC-2204-0005
Women Physical Training Instructor
MC-1406-0002

Work
Fleet Work Study
NV-1406-0012
Work Study Analyst
NV-1406-0012

Writer
Programmed Instruction Writer
NV-1406-0006

WST
E-2B Weapon System Trainer (WST)
NV-1704-0232

X-Ray
X-Ray Technic
NV-0705-0003
X-Ray Technician
NV-0705-0003
X-Ray Technician, Class C
NV-0705-0003
X-Ray Technique
NV-0705-0003

Yeoman
Class B Yeoman School
NV-1407-0001
Communications Yeoman, Class A
NV-1409-0007
Yeoman, Class A
NV-1409-0002
Yeoman School, Class A
CG-1409-0001
Yeoman School, Class B
NV-1407-0001

110 Ton
110 Ton R11 Centrifugal Air Conditioning Unit (York)
NV-1701-0004
R-11 Centrifugal 110 Ton Air Conditioning Combined Maintenance
NV-1701-0004

1200 PSI
1200 PSI BT Maintenance (Boilerman)
NV-1710-0032
1200 PSI BT Orientation/Operation
NV-1710-0021
1200 PSI Enlisted Maintenance
NV-1710-0020
1200 PSI Main Propulsion Assistant
NV-1710-0019
1200 PSI Prospective Engineering Officer
NV-1710-0022
1200 PSI Steam Generating Plant Operator
NV-1710-0075
Boiler Technician, Class A1 (1200 PSI)
NV-1710-0001

12-567E/645E
GM-12-567E/645E Diesel Engine, Class C1
NV-1712-0006

1401 Programming
System 360 Operating System—1401 Programming
MC-1402-0009

16-278A
Enginemen, Class C, General Motors 16-278A Diesel Engine
NV-1712-0005
General Motors Engines (16-278A)
NV-1703-0004
GM-16-278A Diesel Engine, Class C1
NV-1712-0005

1-D-5
Radio Aids Unit (Device 1-D-5), Class C
NV-1715-0372

20 KVA
F-4B 20 KVA and AN/AJB-3A Electrical Organizational Maintenance
NV-1715-0151

268A
Enginemen, Class C, General Motors 8-268A Diesel Engine
NV-1712-0007
GM 268A Diesel Engine, Class C1
NV-1712-0007

2F69D
2F69D P-3 Weapon System Follow-on-Training
NV-2202-0078

2F87
2F87 P-3 Weapon System Follow-on-Training
NV-2202-0079

3306/3309
3306/3309 FTB Conversion Training
NV-1715-0887

3'/50 Caliber
3'/50 Caliber Rapid Fire Gun Mount Maintenance
NV-2202-0085
3'/50 Caliber Rapid Fire Twin Mount Gun Maintenance (Mk 35)
NV-1715-0655

38F5
Fairbanks Morse 38F5 1/4 Diesel Engine
NV-1712-0003

43D50
43D50 Propeller Maintenance Class C
CG-1704-0002

490T-1/1A
490T-1/1A Antenna Coupler Intermediate Maintenance
NV-1715-0314

5"/38 Caliber
Electric Hydraulic Power Drive for 5"/38 Caliber Dual Purpose Single Mount
NV-2202-0075
Mk 9 and Mk 10 5'/38 Caliber Twin Gun Mount Power Drive Maintenance
NV-1715-0654

5'/54
5'/54 Mount Rapid Fire Mk 42 Mod 7 Operation and Maintenance
NV-1715-0668
5"/54 Rapid Fire Gun and Mount Mk 42 Mods 7 and 8, Class C1
NV-1715-0520
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The following columns cross-reference military course numbers to ID numbers for the courses listed in the course exhibit section. Readers who desire to trace courses for which they only have military course numbers as references may find the applicable courses by referring to the cross-reference list.

Each ID number begins with prefix initials which identify a specific branch of the Armed Services. The following prefixes are used:

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AR—Army
CG—Coast Guard
DD—Department of Defense
MC—Marine Corps
NV—Navy

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A-431-0012 .... NV-2202-0017
A-431-0013 .... NV-0802-0007
A-431-0015 .... NV-0802-0003
A-431-0021 .... NV-0709-0005
A-431-0023 .... NV-2202-0018
A-431-0024 .... NV-1606-0007
A-433-0020 .... NV-1606-0014
A-433-0022 .... NV-1606-0010
A-433-0023 .... NV-1606-0011
A-433-0025 .... NV-1606-0008
A-433-018 .... NV-1606-0008
A-433-019 .... NV-1606-0016

A-450-0010 .... NV-1205-0001
A-450-0011 .... NV-1205-0002
A-450-0012 .... NV-1205-0003
A-450-0014 .... NV-1205-0002

A-4A-0010 .... NV-1408-0013
NV-1408-0014
NV-1408-0015
A-4A-0011 .... NV-1408-0014
A-4A-0012 .... NV-1408-0013
A-4A-0013 .... NV-1408-0015
A-4A-0015 .... NV-0802-0010
A-4A-0017 .... NV-1408-0017
A-4A-0025 .... NV-1304-0001
A-4A-0032 .... NV-1408-0009
A-4A-010 .... NV-1408-0013
NV-1408-0014
NV-1408-0015

A-4B-0018 .... NV-1715-0816
A-4B-0023 .... NV-1402-0041
A-4B-019 .... NV-1715-0007

A-4C-0010 .... NV-1404-0003
A-4C-0016 .... NV-1715-0113

A-4E-0022 .... NV-2202-0017
A-4E-0024 .... NV-0802-0002
A-4E-0025 .... NV-0802-0003
A-4E-0045 .... NV-2202-0019
A-4E-0047 .... NV-1606-0007

A-4G-0010 .... NV-1728-0011
A-4G-0011 .... NV-1728-0011
A-4G-0018 .... NV-0802-0004

A-4H-0022 .... NV-1712-0008
A-4H-0024 .... NV-1710-0013
A-4H-020 .... NV-1710-0022
A-4H-021 .... NV-1710-0019

A-4N-0011 .... NV-1606-0015
A-4N-0014 .... NV-1606-0009

A-500-0013 .... NV-1406-0018
A-500-0014 .... NV-1409-0001
A-500-0015 .... NV-1409-0001
A-500-0017 .... NV-1408-0005
A-500-0026 .... NV-1409-0001
A-500-0031 .... NV-1717-0013
A-500-011 .... NV-1406-0004
A-500-012 .... NV-1406-0004
A-500-029 .... NV-1406-0012
A-501-0010 .... NV-1406-0010
A-501-0011 .... NV-1406-0010

A-510-0012 .... NV-1409-0002
A-510-0015 .... NV-1715-0400
A-512-010 .... NV-1407-0002

A-531-0016 .... NV-1402-0022
A-531-011 .... NV-1402-0028
A-531-016 .... NV-1402-0022
A-532-0012 .... NV-1402-0021
A-532-0014 .... NV-1402-0030
A-532-0015 .... NV-1402-0007
A-532-0016 .... NV-1715-0846
A-532-0019 .... NV-1402-0001
A-532-019 .... NV-1402-0001

A-542-0011 .... NV-1401-0002
A-542-0012 .... NV-1401-0001
A-542-0013 .... NV-1408-0002
A-542-0014 .... NV-1408-0001

A-551-0010 .... NV-1405-0017
A-551-0011 .... NV-1405-0017
A-551-0014 .... NV-1409-0006
A-551-0025 .... NV-1710-0015
A-551-0026 .... NV-1715-0025
A-551-0027 .... NV-1710-0016
A-551-0030 .... NV-1715-0025
A-551-0050 .... NV-1402-0045
A-551-0051 .... NV-1402-0045
A-551-0052 .... NV-1402-0045
A-551-0053 .... NV-1402-0045
A-551-0069 .... NV-1405-0002
A-551-0070 .... NV-1405-0002

A-570-0010 .... DD-0505-0001
A-570-0010(S) (USN) DD-0504-0010
A-570-0010 (USN) DD-0505-0001
A-570-0011(USN) DD-0504-0001
A-570-0012 .... DD-0504-0002
A-570-0012 (USN) DD-0504-0002
A-570-0013 .... DD-0504-0003
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A-570-0015 .... NV-1406-0006
A-570-0016 .... NV-1406-0006

A-580-0014 .... NV-1715-0105
A-580-0015 .... NV-1404-0002
A-580-0016 .... NV-1715-0850
A-580-0017 .... NV-1715-0800
A-580-0019 .... NV-1404-0002
A-580-0020 .... NV-1715-0849
A-580-0026 .... NV-1715-0848
A-580-013 .... NV-1409-0007

A-5F-0013 .... NV-1728-0016
A-5F-0014 .... NV-1728-0015

A-5G-0010 .... NV-1513-0004
A-5G-0011 .... NV-1408-0020

A-610-0011 .... NV-1710-0065
A-610-0012 .... NV-1405-0003
A-610-0015 .... NV-1710-0065
A-610-0021 .... NV-1703-0003
A-610-0022 .... NV-1710-0035
A-610-0026 .... NV-1703-0001

A-623-0011 .... NV-1715-0173
A-623-0013 .... NV-1715-0755
A-623-0014 .... NV-1715-0546
A-623-0015 .... NV-1715-0076
A-623-0016 .... NV-1715-0076
A-623-0018 .... NV-1715-0082
A-623-0019 .... NV-1715-0082
A-623-0020 .... NV-1715-0075
A-623-0021 .... NV-1715-0075
A-623-0028 .... NV-1715-0344
A-623-0029 .... NV-1715-0344
A-623-0030 .... NV-1715-0886
A-623-0032 .... NV-1715-0252
A-623-0033 .... NV-1715-0636
A-623-0034 .... NV-1601-0009
A-623-0039 .... NV-1715-0918
A-623-0041 .... NV-1715-0934
A-623-0043 .... NV-1715-0661
A-623-0044 .... NV-1715-0735
A-623-0047 .... NV-1404-0007
A-623-0048 .... NV-1715-0496
A-623-0051 .... NV-1715-0319

A-632-0012 .... NV-1715-0729
A-633-0015 .... NV-1715-0623
A-633-0016 .... NV-1715-0763

A-644-0015 .... NV-2202-0086

A-650-010 .... NV-1715-0714

A-651-0010 ... NV-1710-0001
A-651-0011 ... NV-1710-0033
A-651-0014 ... NV-1710-0003
A-651-0015 ... NV-1303-0001
A-651-0023 ... NV-1710-0031
A-651-0024 ... NV-1732-0005
A-651-0025 ... NV-1714-0003
A-651-0030 ... NV-1732-0001
A-651-0031 ... NV-1710-0032
A-651-0036 ... NV-1710-0056
A-651-0037 ... NV-1710-0021
A-651-0038 ... NV-1710-0075
A-651-0039 ... NV-1710-0072
A-651-0040 ... NV-1710-0072
A-651-0041 ... NV-1710-0073
A-651-0042 ... NV-1710-0073
A-651-0043 ... NV-1710-0074
A-651-0044 ... NV-1710-0074
A-651-0061 ... NV-1710-0057
A-651-011 ... NV-1710-0033
A-651-016 ... NV-1710-0060
A-651-017 ... NV-1710-0002
A-651-020 ... NV-1710-0020
A-651-021 ... NV-1710-0011
A-651-022 ... NV-1732-0001
A-652-0018 ... NV-1712-0011
A-652-0019 ... NV-1712-0015
A-652-0020 ... NV-1712-0007
NV-1712-0020
A-652-0021 ... NV-1712-0005
NV-1712-0020
A-652-0022 ... NV-1712-0006
NV-1712-0020
A-652-0023 ... NV-1712-0014
A-652-0027 ... NV-1710-0066
A-652-0028 ... NV-1704-0174
A-652-0032 ... NV-1712-0018
A-652-0035 ... NV-1712-0020
A-652-0037 ... NV-1712-0001
A-652-0038 ... NV-1703-0005
A-652-0043 ... NV-1730-0002
A-652-0044 ... NV-1730-0002
A-652-0046 ... NV-1712-0002
A-652-0054 ... NV-1703-0007
A-652-0055 ... NV-1710-0023
A-652-0056 ... NV-1712-0010
A-652-0057 ... NV-1601-0008
A-652-0068 ... NV-1710-0067
A-652-0072 ... NV-1703-0008
A-652-0074 ... NV-1601-0013
A-652-0075 ... NV-1601-0014
A-652-0076 ... NV-1703-0009
A-652-0077 ... NV-1715-0301
A-652-0079 ... NV-1601-0015
A-652-0080 ... NV-1712-0019
A-652-0081 ... NV-1601-0016
A-652-0111 ... NV-1701-0004
A-652-0134 ... NV-1402-0020
A-652-039 ... NV-1712-0012

A-662-0015 ... NV-1714-0012
A-662-0016 ... NV-1714-0012
A-662-0017 ... NV-1715-0104
A-662-0021 ... NV-1714-0016
A-662-0038 ... NV-1715-0898
A-662-018 ... NV-1714-0002

A-670-0010 ... NV-1721-0004
A-670-0011 ... NV-1721-0005
A-670-0014 ... NV-1721-0008
A-670-0018 ... NV-1721-0007
A-670-0020 ... NV-1715-0545
A-670-0021 ... NV-1715-0587
A-670-0026 ... NV-1715-0762
A-670-0027 ... NV-1706-0003
A-670-0042 ... NV-1715-0062
A-670-013 ... NV-1706-0001
A-670-014 ... NV-1721-0008
A-670-021 ... NV-1715-0587

A-690-0014 ... NV-1715-0660
A-690-0015 ... NV-1715-0660
A-690-0017 ... NV-1702-0001
A-690-0018 ... NV-1715-0392
A-690-0022 ... NV-1601-0017
A-690-0023 ... NV-1722-0004

A-6A-0010 ... NV-1606-0017

A-700-010 ... NV-1723-0005
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A-701-0025 ... NV-1710-0044
A-701-0026 ... NV-1710-0050
A-701-0027 ... NV-1710-0051
A-701-0028 ... NV-1710-0069
A-701-0029 ... NV-1710-0049
A-701-0037 ... NV-1710-0068
A-701-0038 ... NV-1710-0053
A-701-014 ... NV-1710-0046
A-701-015 ... NV-1710-0046
A-701-017 ... NV-1724-0002
A-702-0019 ... NV-1723-0002
A-702-0020 ... NV-1723-0011
A-702-0021 ... NV-1724-0001
A-702-0028 ... NV-1723-0001
A-703-0010 ... NV-1723-0007

A-710-0010 ... NV-1710-0063
A-710-0011 ... NV-1710-0042
A-710-0014 ... NV-1710-0042
A-710-0016 ... NV-1408-0006
A-710-0017 ... NV-1710-0038
A-710-0018 ... NV-1710-0034
A-710-0019 ... NV-1710-0037
A-710-0021 ... NV-1408-0006
A-710-012 ... NV-1710-0064
A-711-0015 ... NV-1723-0009
A-711-0018 ... NV-1723-0008
A-712-0010 ... NV-1002-0001
A-712-0011 ... NV-1736-0001

A-720-0012 ... NV-1732-0006
A-720-0013 ... NV-1710-0036
A-720-0016 ... NV-1732-0006
A-720-0022 ... NV-1710-0027
A-720-0025 ... NV-1701-0006
A-720-0028 ... NV-1701-0002
A-720-010 ... NV-1701-0005
A-720-011 ... NV-1701-0005
A-721-0018 ... NV-1714-0008
A-721-0019 ... NV-1714-0010
A-721-0021 ... NV-1714-0008
A-721-0022 ... NV-1714-0010
A-721-0023 ... NV-1714-0015
A-721-018 ... NV-1714-0008
A-721-021 ... NV-1714-0008

A-730-0010 ... NV-1710-0017
A-730-0011 ... NV-1710-0018
A-730-0012 ... NV-1710-0017
A-730-0014 ... NV-1601-0004
A-730-0015 ... NV-1601-0004
A-730-0016 ... NV-1601-0004
A-730-0017 ... NV-1710-0062
A-730-0018 ... NV-1710-0043
A-730-0019 ... NV-1710-0064
A-730-0020 ... NV-1710-0040
A-730-014 ... NV-1601-0004
A-730-015 ... NV-1601-0004
A-730-016 ... NV-1601-0004
A-733-0017 ... NV-1710-0030

A-740-0020 ... DD-1719-0003

A-750-0010 ... NV-1601-0010
A-750-0012 ... NV-1601-0001

A-780-0016 ... NV-1728-0009
A-780-0024 ... NV-1728-0004
A-780-0025 ... NV-1728-0004
A-780-0035 ... NV-1728-0012
A-780-0036 ... NV-1728-0012

A-790-0011 ... NV-1723-0003
A-790-0012 ... NV-1723-0004

A-7B-0010 ... NV-0326-0002
A-7B-0011 ... NV-0326-0002
A-7B-0012 ... NV-0326-0002
A-7B-010 ... NV-0326-0002
A-7B-011 ... NV-0326-0002
A-7B-012 ... NV-0326-0002

A-7C-0018 ... NV-1717-0013
A-7C-0019 ... NV-1512-0005
NV-1512-0006
A-7C-013 ... NV-1408-0008
A-7C-014 ... NV-1408-0008
A-7C-015 ... NV-1406-0012

A-7E-0014 ... NV-1402-0030

A-7G-0010 ... DD-0504-0009

A-7K-0011 ... NV-0801-0002
A-7K-011 ... NV-0801-0005

A-800-0015 ... NV-1729-0002
A-800-014 ... NV-1729-0002
A-800-015 ... NV-1729-0002
A-801-015 ... NV-1729-0008

A-823-0010 ... NV-1405-0001
A-823-0011 ... NV-1405-0001

A-840-0012 ... NV-1726-0001
A-840-0013 ... NV-1726-0001

A-8B-0012 ... NV-1405-0014
NV-1405-0015
NV-1405-0016
A-8B-0013 ... NV-1405-0006
A-8B-0016 ... NV-1402-0008
A-8B-0019 ... NV-1401-0003
A-8B-0020 ... NV-1405-0009
A-8B-0025 ... NV-1405-0011

A-8C-0011 ... NV-0419-0012
A-8C-0012 ... NV-0419-0009
A-8C-0013 ... NV-1708-0007
A-8C-0014 ... NV-0419-0010
A-8C-0015 ... NV-1717-0007
A-8C-0017 ... NV-0419-0008
A-8C-0022 ... NV-0419-0011
A-8C-0023 ... NV-0419-0007
A-8C-0024 ... NV-0419-0013

A-8E-010 ... NV-1729-0009

A-8F-010 ... NV-1408-0023

ABA79130-1(USAF) ... DD-0504-0001

ANC-1 ... CG-2205-0001
ANC-2 ... CG-1715-0046
ANC-3 ... CG-1715-0042
ANC-4 ... CG-2205-0009
ANC-6 ... CG-1715-0041

A-SK-0011 ... NV-1512-0003

AZA72151-1 ... DD-0505-0001

B-000-12 ... NV-0101-0001
B-000-13 ... NV-0101-0001
B-00-13 ... NV-0101-0001
B-00-14 ... NV-0101-0001

B-300-0010 ... NV-0703-0005
B-300-0012 ... NV-0709-0001
B-300-0016 ... NV-0709-0008
B-300-0018 ... NV-0709-0006
B-300-0019 ... NV-0709-0008
B-300-0020 ... NV-0706-0003
B-300-0024 ... NV-0709-0009
B-300-0025 ... NV-0702-0004
B-300-012 ... NV-0709-0001
B-300-10 ... NV-0703-0005
B-300-11 ... NV-0703-0005
B-300-12 ... NV-0709-0001
B-300-13 ... NV-0709-0015
B-300-14 ... NV-0709-0015
B-300-15 ... NV-0709-0008
B-300-16 ... NV-0709-0008
B-300-17 ... NV-0709-0003
B-300-18 ... NV-0709-0006
B-300-19 ... NV-0709-0006
B-300-20 ... NV-0706-0001
B-300-21 ... NV-0709-0009
B-300-22 ... NV-0709-0009
B-300-23 ... NV-0709-0009
B-300-24 ... NV-0709-0009
B-300-25 ... NV-0702-0004
B-300-26 ... NV-0702-0004

B-300-27..........NV-0702-0004
B-300-28..........NV-0702-0004
B-300-29..........NV-0709-0013
B-301-0033..........NV-0703-0004
B-301-30..........NV-0703-0004
B-301-33..........NV-0703-0004
B-301-34..........NV-0703-0004
B-301-36..........NV-0703-0004
B-301-38..........NV-0703-0004
B-302-40..........NV-0709-0011
B-302-41..........NV-0709-0011
B-302-42..........NV-0709-0011
B-302-43..........NV-0709-0011
B-302-44..........NV-0709-0011
B-302-45..........NV-0703-0003
B-302-46..........NV-0703-0003
B-302-47..........NV-0703-0003
B-303-0050..........NV-0704-0002
B-303-0051..........NV-0704-0002
B-303-48..........NV-0704-0003
B-303-49..........NV-0704-0003
B-303-50..........NV-0704-0002
B-303-51..........NV-0704-0002
B-304-52..........NV-0704-0001

B-311-0018..........NV-0702-0003
B-311-0025..........NV-0702-0002
B-311-0036..........NV-0702-0009
B-311-10..........NV-0702-0008
B-311-11..........NV-0702-0008
B-311-12..........NV-0702-0008
B-311-13..........NV-0702-0008
B-311-14..........NV-0702-0001
B-311-15..........NV-0702-0006
B-311-16..........NV-0705-0002
B-311-17..........NV-0705-0002
B-311-18..........NV-0702-0003
B-311-19..........NV-0702-0003
B-311-20..........NV-0709-0010
B-311-21..........NV-0709-0010
B-311-22..........NV-0709-0010
B-311-23..........NV-0706-0002
B-311-24..........NV-0702-0002
B-312-0025..........NV-0799-0003
B-312-24..........NV-0799-0003
B-312-25..........NV-0799-0003
B-313-0026..........NV-0705-0003
B-313-26..........NV-0705-0003
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B-313-32..........NV-0705-0003
B-313-33..........NV-0705-0003
B-313-34..........NV-0705-0003

B-322-0010..........NV-0705-0004
B-322-11..........NV-0709-0004
B-322-12..........NV-0707-0001

B-330-10..........NV-0701-0006
B-330-11..........NV-0701-0005
B-331-16..........NV-0701-0007
B-331-17..........NV-0701-0003
B-331-18..........NV-0701-0001
B-331-19..........NV-0701-0004
B-331-20..........NV-0701-0004

B-400-10..........NV-1709-0016

B-414-0010..........NV-0202-0001
B-414-10..........NV-0202-0001

B-513-0010..........NV-1408-0021
B-513-0011..........NV-1408-0021
B-513-0012..........NV-1408-0021
B-513-0013..........NV-1408-0021

B-670-10..........NV-1715-0680

B-6A-22..........NV-0705-0001

B-6F-0012..........NV-0703-0001
B-6F-012..........NV-0703-0001
B-6F-12..........NV-0703-0001

C-000-3182..........NV-1715-015
C-000-3187..........NV-1715-0157
C-000-3189..........NV-1715-0149
C-000-3204..........NV-1717-0008
C-000-3743..........NV-1717-0005
C-000-3763..........NV-1704-0078
C-000-3764..........NV-1715-0691
C-000-3807..........NV-1704-0126
C-000-3896..........NV-1704-0211
C-00-3471..........NV-1704-0054
C-00-3491..........NV-1704-0121

C-012-2010..........NV-1406-0001
C-012-2011..........NV-1406-0011
C-012-2012..........NV-1408-0007

C-050-3531..........NV-1704-0048

C-100-2010..........NV-1715-0556
C-100-2011..........NV-1715-0137
C-100-2012..........NV-1715-0102
C-100-2013..........NV-1715-0380
C-100-2014..........NV-1704-0228
C-100-3571..........NV-1715-0516
C-100-3741..........NV-1715-0238
C-100-3742..........NV-1715-0547
C-100-3743..........NV-1715-0542
C-100-3745..........NV-1715-0143
C-100-3746..........NV-1715-0424
C-100-3747..........NV-1715-0248
C-100-3748..........NV-1715-0748
C-100-3831..........NV-1715-0399
C-100-3832..........NV-1715-0415
C-100-3834..........NV-1715-0225
C-102-0242..........NV-1715-0765
C-102-135..........NV-1715-0561
C-102-19..........NV-1715-0287
C-102-195..........NV-1715-0562
C-102-199..........NV-1715-0223
C-102-2011..........NV-1715-0137
C-102-2012..........NV-1715-0102
C-102-218..........NV-1715-0701
C-102-225..........NV-1715-0187
C-102-228..........NV-1715-0370
C-102-294..........NV-1715-0224
C-102-3012..........NV-1715-0314
C-102-3016..........NV-1715-0188
C-102-3019..........NV-1715-0773
C-102-3022..........NV-1715-0094
C-102-3026..........NV-1715-0369
C-102-3031..........NV-1715-0584
C-102-3032..........NV-1715-0553
C-102-3034..........NV-1715-0519
C-102-3036..........NV-1715-0359
C-102-3041..........NV-1715-0507
C-102-3043..........NV-1715-0247
C-102-3058..........NV-1715-0397
C-102-3059..........NV-1715-0178
C-102-306..........NV-1715-0688
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C-102-3069..........NV-1715-0057
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C-102-3094..........NV-1715-0797
C-102-3098..........NV-1715-0796
C-102-3376..........NV-1715-0697
C-102-3389..........NV-1715-0775
C-102-3397..........NV-1715-0227
C-102-3398..........NV-1715-0583
C-102-3441..........NV-1715-0101
C-102-3460..........NV-1715-0287
C-102-3471..........NV-1715-0672
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C-102-3479..........NV-1715-0776
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C-102-3539..........NV-1715-0112
C-102-3545..........NV-1715-0096
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C-102-3555..........NV-1715-0117
C-102-3559..........NV-1715-0506
C-102-3560..........NV-1704-0072
C-102-3574..........NV-1715-0299
C-102-3575..........NV-1715-0329
C-102-3578..........NV-1402-0040
C-102-3581..........NV-1715-0059
C-102-3582..........NV-1715-0058
C-102-3590..........NV-1715-0256
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C-102-3774..........NV-1715-0297
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C-103-2020..........NV-1715-0037
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C-103-2029..........NV-1715-0799

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C-111-2012 .... NV-1715-0102
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C-111-3702 .... NV-1715-0226
C-111-3742 .... NV-1402-0044
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C-112-126 .... NV-1715-0415
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C-112-2012 .... NV-1715-0102
C-112-23 .... NV-1715-0309
C-112-3611 .... NV-1715-0362
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C-112-3896 .... NV-1704-0214

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C-122-3110 .... NV-1715-0702
C-122-3111 .... NV-1715-0589

C-130-3396 .... NV-1715-0747

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C-150-16 .... NV-1715-0111
C-150-31 .... NV-1715-0429
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C-150-3474 .... NV-1715-0348
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C-150-3478 .... NV-1715-0254
C-150-3479 .... NV-1715-0318
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C-150-3487 .... NV-1715-0111
C-150-36 .... NV-1715-0340
C-150-3763 .... NV-1715-0068
C-150-3766 .... NV-1715-0067
C-150-3767 .... NV-1715-0548
C-150-3769 .... NV-1715-0071
C-150-3783 .... NV-1715-0529
C-150-3785 .... NV-1704-0229

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C-191-2011 .... NV-1715-0598
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C-198-3761 .... NV-1715-0159
C-198-3781 .... NV-1715-0174
C-198-3831 .... NV-1715-0750
C-198-3832 .... NV-1715-0752
C-198-3833 .... NV-1715-0751

C-210-2010 .... NV-1715-0536

C-221-2013 .... NV-1704-0115
C-222-2010 .... NV-1704-0004
C-222-2013 .... NV-1715-0123

C-2A-3531 .... NV-1704-0039
C-2A-3742 .... NV-1606-0022
C-2A-3743 .... NV-1717-0005

C-2B-10 .... NV-1709-0004

C-2D-2014 .... NV-1704-0001
C-2D-3814 .... NV-1715-0831

C-2G-2010 .... NV-1704-0184
C-2G-2014 .... NV-1704-0003
C-2G-2016 .... NV-1704-0012
C-2G-2017 .... NV-2202-0069
C-2G-2018 .... NV-1402-0037
C-2G-2020 .... NV-2202-0074
C-2G-2021 .... NV-1704-0117
C-2G-2022 .... NV-1704-0115
C-2G-2023 .... NV-1715-0039

C-400-10 .... NV-1709-0001
C-400-11 .... NV-1709-0003
C-400-12 .... NV-1709-0009
C-400-2010 .... NV-1709-0009
C-400-2011 .... NV-1709-0001
C-400-2020 .... NV-1709-0018
C-400-2021 .... NV-1709-0017
C-400-2022 .... NV-1709-0010

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C-420-2013 .... NV-1606-0027

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C-4D-2010 .... NV-1704-0142

C-516-2010 .... NV-1409-0003
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C-551-2012 .... NV-1405-0007

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NV-1715-0740
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C-600-3719 .... NV-1704-0023
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C-601-2011 .... NV-1704-0159
C-601-2012 .... NV-1704-0149
C-601-2013 .... NV-1704-0158
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C-601-3131 .... NV-1704-0027
C-601-3132 .... NV-1704-0016
C-601-3133 .... NV-1704-0021
C-601-3134 .... NV-1704-0029
C-601-3136 .... NV-1704-0123
C-601-3138 .... NV-1704-0024
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C-602-162 .... NV-1715-0617
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C-602-182 .... NV-1715-0682
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C-602-2022 .... NV-2202-0026
C-602-2023 .... NV-1704-0138
C-602-2024 .... NV-1704-0145
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C-602-3013 .... NV-1704-0046
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C-602-3216 .... NV-1704-0110
C-602-3226 .... NV-1715-0700
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C-602-3532 .... NV-1715-0462
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C-602-3702 .... NV-1714-0014
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C-602-3793 .... NV-1704-0013
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C-602-3834 .... NV-1715-0209
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C-602-3899 .... NV-1704-0210
C-602-3900 .... NV-1704-0215
C-602-3901 .... NV-1704-0216
C-602-43 .... NV-1714-0014
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C-603-2011 .... NV-1704-0177
C-603-3191 .... NV-1704-0156
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C-603-3532 .... NV-1701-0001

C-646-12 .... NV-1715-0181
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C-646-2011 .... NV-1717-0010
C-646-3103 .... NV-0802-0009
C-646-3118 .... NV-1715-0571
C-646-3119 .... NV-1710-0026
C-646-3716 .... NV-1715-0631
C-646-3786 .... NV-2202-0097
C-646-3787 .... NV-1704-0173
C-646-3788 .... NV-1704-0203
C-646-3806 .... NV-1715-0632
C-646-3851 .... NV-1715-0181
C-646-3896 .... NV-1704-0221

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C-670-2011 .... NV-1715-0354
C-670-2012 .... NV-1715-0160

C-680-2011 .... NV-1704-0187
C-680-2012 .... NV-1704-0042
C-680-2013 .... NV-1710-0010
C-680-2015 .... NV-1710-0061

C-780-2010 .... NV-1728-0006

C-7E-2010 .... NV-1115-0002

C-821-2010 .... NV-1728-0005
C-821-2011 .... NV-1704-0186
C-822-2010 .... NV-1728-0014

COMO1 .... CG-1715-0052
CG-1715-0053
CG-1715-0058
COMO2 .... CG-1715-0057
COMO5 .... CG-1715-0045
COMO6 .... CG-1715-0047

D-00-0032 .... NV-1715-0768

D-050-010 .... NV-2202-0044
D-050-011 .... NV-2202-0039

D-100-012 .... NV-1715-0707
D-100-015 .... NV-1715-0480
D-102-0001 .... NV-1715-0777
D-102-014 .... NV-1715-0483
D-102-015 .... NV-1715-0484
D-102-016 .... NV-1715-0485
D-102-021 .... NV-1715-0486
D-102-024 .... NV-1715-0487
D-102-026 .... NV-1715-0488
D-102-030 .... NV-1715-0489

D-150-010 .... NV-1715-0581
D-150-011 .... NV-1715-0030
D-150-014 .... NV-1709-0008
D-150-015 .... NV-1709-0007
D-150-016 .... NV-1715-0003
D-150-017 .... NV-1402-0035
D-150-019 .... NV-1715-0084

D-201-0010 .... NV-1715-0481
D-201-010 .... NV-1715-0481

D-210-0010 .... NV-1715-0517
D-210-0020 .... NV-1715-0767

D-221-0016 .... NV-1704-0233
D-222-010 .... NV-1715-0482

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D-2A-0011 .... NV-2202-0043
D-2A-0012 .... NV-2202-0043
D-2A-0013 .... NV-2202-0042
D-2A-011 .... NV-2202-0040
D-2A-012 .... NV-2202-0043
D-2A-013 .... NV-2202-0042

D-2B-0015 .... NV-1606-0054
D-2B-0016 .... NV-1606-0053
D-2B-012 .... NV-1606-0034
D-2B-013 .... NV-1606-0035

D-2D-0010 .... NV-2202-0041
D-2D-0011 .... NV-1704-0213
D-2D-0012 .... NV-1704-0219
D-2D-0016 .... NV-1704-0225
D-2D-0017 .... NV-1704-0233
D-2D-010 .... NV-2202-0041

D-2G-010 .... NV-1715-0482

D-3A-010 .... NV-1709-0006
D-3A-012 .... NV-1402-0043
D-3A-013 .... NV-1606-0002

D-600-010 .... NV-1704-0178
D-600-011 .... NV-1704-0179
D-602-011 .... NV-1715-0490
D-602-017 .... NV-1715-0708
D-603-0570 .... NV-1704-0124

D-7E-010 .... NV-1402-0029

D-7F-010 .... NV-1709-0013

E-201-0010 .... NV-1409-0004
E-201-10 .... NV-1409-0004

E-210-0032 .... NV-2202-0080
E-210-0050 .... NV-1715-0696
E-210-0057 .... NV-2202-0034
E-210-050 .... NV-1715-0696
E-210-32 .... NV-2202-0080
E-210-42 .... NV-1715-0704
E-210-44 .... NV-2202-0105
E-210-45 .... NV-1715-0678
E-210-48 .... NV-1715-0020
E-210-51 .... NV-2202-0096
E-210-53 .... NV-1715-0676
E-210-54 .... NV-1715-0679
E-210-55 .... NV-1715-0275
E-210-57 .... NV-2202-0034

E-221-34 .... NV-1715-0021

E-2A-0018 .... NV-1606-0057
E-2A-1718 .... NV-1606-0057

E-2C-012 .... NV-2202-0008
E-2C-013 .... NV-2202-0035

E-2D-0064 .... NV-1715-0270
E-2D-0071 .... NV-2202-0021
E-2D-0072 .... NV-1304-0003
E-2D-0075 .... NV-1606-0043
E-2D-0201 .... NV-1704-0226
E-2D-0202 .... NV-1704-0232
E-2D-056 .... NV-2202-0001
E-2D-064 .... NV-1715-0270
E-2D-065 .... NV-2202-0032
E-2D-066 .... NV-1715-0555
E-2D-070 .... NV-1606-0028
E-2D-071 .... NV-2202-0021
E-2D-072 .... NV-1304-0003
E-2D-074 .... NV-1715-0215

E-4D-10 .... NV-1717-0001

E-601-0610 .... NV-1704-0164
E-601-1910 .... NV-1704-0180
E-602-1080 .... NV-1704-0161

E-646-0640 .... NV-1704-0167

EM-17 .... CG-1715-0066

F-000-0045 .... NV-1710-0070
F-000-0076 .... NV-1710-0039
F-000-0080 .... NV-1715-0904
F-000-010 .... NV-2202-0029
F-000-014 .... NV-1715-0321
F-000-023 .... NV-1715-0165
F-000-034 .... NV-0705-0005
NV-1720-0001
F-000-035 .... NV-1710-0024
F-000-040 .... NV-1710-0057
F-000-045 .... NV-1710-0070
F-000-076 .... NV-1710-0039
F-00-012 .... NV-2202-0056
F-00-014 .... NV-1408-0022

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F-101-0023 .... NV-1715-0903
F-101-0027 .... NV-1715-0531
F-101-013 .... NV-1715-0229
F-101-016 .... NV-1715-0089
F-101-018 .... NV-1715-0734
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F-101-024 .... NV-1715-0132
F-101-025 .... NV-1715-0378
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F-102-015 .... NV-1715-0131
F-104-010 .... NV-1715-0061

F-121-061 .... NV-1715-0245
F-121-083 .... NV-1715-0353

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F-130-010 .... NV-1715-0303
F-130-016 .... NV-1715-0307
F-130-018 .... NV-1715-0425
F-130-020 .... NV-1715-0689

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F-160-010 .... NV-1715-0107
F-160-011 .... NV-1715-0090

F-193-0072 .... NV-1715-0441
F-193-019 .... NV-1402-0039
F-193-032 .... NV-1715-0426
F-193-072 .... NV-1715-0416
F-193-076 .... NV-1715-0125
F-193-080 .... NV-1715-0426
F-193-082 .... NV-1715-0339
F-193-084 .... NV-1715-0657
F-193-086 .... NV-1715-0232
F-193-088 .... NV-1715-0128
F-193-089 .... NV-1402-0025
F-193-090 .... NV-1402-0024
F-193-091 .... NV-1402-0026

F-210-011 .... NV-2202-0012
F-210-013 .... NV-1601-0012
F-210-014 .... NV-1721-0002
F-210-015 .... NV-1721-0010

F-4B-011 .... NV-1715-0332

F-4E-013 .... NV-2202-0047

F-623-014 .... NV-1715-0319
F-623-015 .... NV-1715-0062
F-623-016 .... NV-1715-0642
F-623-025 .... NV-1715-0252
F-623-027 .... NV-1715-0636
F-623-029 .... NV-1715-0560
F-623-031 .... NV-1715-0551
F-623-035 .... NV-1715-0588
F-623-044 .... NV-1601-0009

F-633-013 .... NV-1715-0575

F-652-010 .... NV-1730-0004
F-652-014 .... NV-1730-0003
F-652-015 .... NV-1601-0002
F-652-018 .... NV-1703-0004
F-652-020 .... NV-1712-0003
F-652-026 .... NV-1710-0025
F-652-032 .... NV-1701-0004
F-652-041 .... NV-1701-0002
F-652-044 .... NV-1601-0006

F-662-011 .... NV-1714-0005

F-701-010 .... NV-1710-0046
F-701-015 .... NV-1710-0045
F-701-016 .... NV-1710-0048

F-772-010 .... NV-1722-0007
F-772-011 .... NV-1708-0003

G-000-6250 .... NV-1728-0001
G-000-6583 .... NV-2202-0091

G-00-6250 .... NV-1728-0001
G-00-6301 .... NV-2202-0045
G-00-6518 .... NV-2202-0090

G-010-4606 .... NV-2202-0049
G-010-4610 .... NV-0803-0001

G-041-6435 .... NV-2202-0057
G-041-6436 .... NV-2202-0037

G-060-6305 .... NV-1722-0002
G-062-6358 .... NV-1708-0006

G1009 .... CG-0703-0001

G-243-4212 .... NV-1606-0005

G-2E-4231 .... NV-2202-0025
G-2E-4606 .... NV-2202-0049
G-2E-4610 .... NV-0803-0001
G-2E-6244 .... NV-1606-0007
G-2E-6303 .... NV-2202-0005
G-2E-6310 .... NV-1708-0002
G-2E-6435 .... NV-2202-0057

G-2G-4314 .... NV-2202-0006
G-2G-6432 .... NV-2202-0006
G-2G-6434 .... NV-2202-0058
G-2G-6435 .... NV-2202-0057
G-2G-6438 .... NV-2202-0059
G-2G-6449 .... NV-2202-0055
G-2G-6510 .... NV-2202-0031

G-431-6244 .... NV-1606-0007

G-4H-6190 .... NV-1710-0059
G-4H-6191 .... NV-1710-0012

G-551-4409 .... NV-0419-0003
G-551-4418 .... NV-0419-0005

G-651-6191 .... NV-1710-0012
G-652-6160 .... NV-1712-0009

G-813-6358 .... NV-1708-0006

G-8B-4403 .... NV-0419-0004
G-8B-4418 .... NV-0419-0005

H-000-1001 .... NV-0602-0001
H-000-1500 .... NV-1708-0001
H-000-1600 .... NV-1722-0010
H-000-1800 .... NV-1722-0003
H-000-1900 .... NV-2202-0002
H-000-1940 .... NV-2202-0071
H-000-5219 .... NV-2202-0081
H-000-5221 .... NV-1728-0003
H-000-5222 .... NV-1511-0001
H-000-5240 .... NV-1728-0002
H-000-5318 .... NV-1708-0002
H-000-5324 .... NV-1722-0009
H-00-1001 .... NV-0602-0001
H-00-1500 .... NV-1708-0001
H-00-1501 .... NV-2202-0048
H-00-1600 .... NV-1722-0010
H-00-1800 .... NV-1722-0003
H-00-1940 .... NV-2202-0071
H-00-5219 .... NV-2202-0081
H-00-5221 .... NV-1728-0003
H-00-5222 .... NV-1511-0001
H-00-5223 .... NV-2202-0046
H-00-5240 .... NV-1728-0002
H-00-5324 .... NV-1722-0009

H-010-3923 .... NV-0803-0001

H-041-5442 .... NV-2202-0062
H-041-5442A NV-2202-0061

H-243-3167 .... NV-1606-0006

H-2E-3923 .... NV-0803-0001
H-2E-5311 .... NV-1606-0007
H-2E-5313 .... NV-2202-0066
H-2E-5318 .... NV-1708-0002

H-2G-3621 .... NV-2202-0006
H-2G-5212 .... NV-2202-0031
H-2G-5421 .... NV-2202-0006
H-2G-5441 .... NV-2202-0060
H-2G-5443 .... NV-2202-0053
H-2G-5444 .... NV-2202-0067
H-2G-5445 .... NV-2202-0064
H-2G-5447 .... NV-2202-0089

H-3A-5515 .... NV-1606-0004
H-3A-5516 .... NV-1606-0003

H-431-5311 .... NV-1606-0007

H-4C-5215 .... NV-1404-0006

H-652-0060 .... NV-1712-0013
H-652-5317 .... NV-1712-0016

H-813-5316 .... NV-1708-0006

H-8B-3551 .... NV-0419-0004

J-041-0123 .... NV-1715-0179
J-041-0128 .... NV-1715-0668
J-041-1032 .... NV-1715-0684

J-060-0622 .... NV-1722-0005
J-060-6221 .... NV-1722-0005

J-100-0700 .... NV-1715-0005
J-102-600 .... NV-1715-0338

J-113-0103 .... NV-1715-0684
J-113-0105 .... NV-1715-0220
J-113-0111 .... NV-1715-0403
J-113-0116 .... NV-1715-0207
J-113-0118 .... NV-1715-0127
J-113-0129 .... NV-1715-0315
J-113-0138 .... NV-1715-0086
J-113-1032 .... NV-1715-0684
J-113-1052 .... NV-1715-0220
J-113-1062 .... NV-1715-0759
J-113-1112 .... NV-1715-0403
J-113-1161 .... NV-1715-0207
J-113-1162 .... NV-1715-0207
J-113-1181 .... NV-1715-0127
J-113-1182 .... NV-1715-0127
J-113-1202 .... NV-1715-0655
J-113-123 .... NV-1715-0179
J-113-1291 .... NV-1715-0315
J-113-1292 .... NV-1715-0315
J-113-1382 .... NV-1715-0086

J-130-0505 .... NV-1715-0423
J-130-0515 .... NV-1715-0040
J-130-0835 .... NV-1715-0300
J-130-0865 .... NV-1715-0405
J-130-0875 .... NV-1715-0420

J-201-615 .... NV-2202-0054

J-221-0321 .... NV-2202-0052
J-221-3212 .... NV-2202-0052
J-221-352 .... NV-1402-0003
J-221-353 .... NV-1402-0005
J-221-3532 .... NV-1402-0005

J-2E-0100 .... NV-1715-0625
J-2E-1002 .... NV-1715-0625
J-2E-101 .... NV-1715-0624

J-2G-3212 .... NV-2202-0052
J-2G-352 .... NV-1402-0003
J-2G-353 .... NV-1402-0005
J-2G-420 .... NV-0801-0001

J-3A-0955 .... NV-1606-0055

J-4E-9122 .... NV-0802-0006
J-4E-9142 .... NV-0802-0005

J-532-0375 .... NV-1402-0031
J-532-3752 .... NV-1402-0031
J-532-3762 .... NV-1402-0033
J-532-3772 .... NV-1402-0009

J-644-0914 .... NV-0802-0005
J-644-9122 .... NV-0802-0006
J-644-9142 .... NV-0802-0005

J-651-0473 .... NV-1712-0001

J-772-620 .... NV-1708-0004

J-780-420 .... NV-0801-0001

J-7E-3752 .... NV-1402-0031
J-7E-3762 .... NV-1402-0033
J-7E-3772 .... NV-1402-0009

K-000-0042 .... NV-1402-0034
K-00-060 .... NV-1728-0017
K-000-947 .... NV-2202-0084
K-00-1013 .... NV-2202-0052
K-00-2044 .... NV-1728-0017
K-00-556 .... NV-2202-0052

K-012-2068 .... NV-1408-0007

K-041-124 .... NV-1715-0772
K-041-2010 .... NV-1715-0148
K-041-2019 .... NV-1715-0772
K-041-2029 .... NV-1715-0667
K-041-2050 .... NV-2202-0075
K-041-2051 .... NV-1715-0147
K-041-2052 .... NV-2202-0085
K-041-2056 .... NV-1715-0668
K-041-2060 .... NV-1715-0654

K-102-276 .... NV-1715-0106

K-113-158 .... NV-1715-0728
K-113-180 .... NV-1715-0210
K-113-2024 .... NV-1715-0129
K-113-2026 .... NV-1715-0306
K-113-2027 .... NV-1715-0283
K-113-2033 .... NV-1715-0402
K-113-2067 .... NV-1715-0103
K-113-2071 .... NV-1715-0210
K-113-2072 .... NV-1715-0207
K-113-2073 .... NV-1715-0264
K-113-2074 .... NV-2202-0028
K-113-2075 .... NV-1715-0208

K-121-1021 .... NV-1715-0630
K-123-571 .... NV-1715-0532
K-123-592 .... NV-1601-0011

K-130-1007 .... NV-1715-0040
K-130-1008 .... NV-1715-0261
K-130-1009 .... NV-1715-0126
K-130-1025 .... NV-1715-0124
K-130-1060 .... NV-1715-0320
K-130-559 .... NV-1715-0578
K-130-560 .... NV-1715-0580
K-130-567 .... NV-1715-0126
K-130-570 .... NV-1715-0158

K-160-262 .... NV-1715-0665

K-201-2115 .... NV-2202-0054

K-221-0019 .... NV-2202-0038
K-221-0027 .... NV-1715-0674
K-221-0039 .... NV-1715-0673
K-221-0042 .... NV-1402-0034
K-221-0075 .... NV-1402-0010
K-221-1010 .... NV-1715-0673
K-221-1012 .... NV-1402-0034
K-222-0051 .... NV-1704-0220

K-233-0025 .... NV-1715-0017
K-233-281 .... NV-1715-0017

K-2G-0007 .... NV-1704-0002
K-2G-0008 .... NV-1402-0042
K-2G-0013 .... NV-1715-0022
K-2G-0026 .... NV-1715-0023
K-2G-0027 .... NV-1715-0674
K-2G-0038 .... NV-1402-0005
K-2G-0074 .... NV-1402-0023
K-2G-1010 .... NV-1402-0006
K-2G-1020 .... NV-1402-0002
K-2G-1021 .... NV-1402-0014
K-2G-1026 .... NV-1402-0004
K-2G-351 .... NV-2202-0074
K-2G-352 .... NV-2202-0074
K-2G-353 .... NV-2202-0074
K-2G-3532 .... NV-1402-0005
K-2G-362 .... NV-1704-0002
K-2G-363 .... NV-1704-0005

K-301-840 .... NV-2202-0054

K-3A-5002 .... NV-2202-0023
K-3A-5005 .... NV-1606-0024
K-3A-5006 .... NV-1606-0059
K-3A-5010 .... NV-1606-0056
K-3A-5011 .... NV-1606-0055
K-3A-516 .... NV-2202-0023
K-3A-526 .... NV-1606-0056
K-3A-527 .... NV-1606-0055

K-4H-2008 .... NV-1712-0008
K-4H-465 .... NV-1717-0006

K-532-0001 .... NV-1402-0015
K-532-0002 .... NV-1402-0019
K-532-0003 .... NV-1402-0017
K-532-0043 .... NV-1402-0046

K-772-2101 .... NV-1708-0005
K-772-600 .... NV-2202-0076

K-7E-0043 .... NV-1402-0046

L-000-0033 .... NV-1715-0905
L-000-0034 .... NV-1715-0906
L-000-0035 .... NV-1715-0907
L-000-0058 .... NV-1715-0904

L0R-13 .... CG-1715-0048

L-101-0013 .... NV-1715-0900
L-101-0015 .... NV-1715-0089
L-101-0031 .... NV-1715-0132
L-101-0039 .... NV-1715-0531
L-101-028 .... NV-1715-0250
L-101-029 .... NV-1715-0251
L-102-0020 .... NV-1715-0903
L-104-0010 .... NV-1715-0312

L-121-0030 .... NV-1715-0902
L-121-0048 .... NV-1715-0895
L-121-0049 .... NV-1715-0894
L-121-0051 .... NV-1715-0897
L-121-0053 .... NV-1715-0892
L-121-0056 .... NV-1715-0891

L-160-0012 .... NV-1715-0664
L-160-011 .... NV-1706-0002
L-160-012 .... NV-1715-0664

L-191-011 .... NV-1715-0253
L-193-0011 .... NV-1715-0899
L-193-026 .... NV-1715-0131
L-198-0012 .... NV-1715-0896

L-210-015 .... NV-1721-0003

L-652-0010 .... NV-1730-0006
L-652-010 .... NV-1730-0006
L-652-012 .... NV-1601-0005
L-652-021 .... NV-1730-0001

L-661-020 .... NV-1710-0057
L-662-0013 .... NV-1715-0898
L-662-0023 .... NV-1715-0901

L-701-0014 .... NV-1710-0047
L-701-014 .... NV-1710-0047
L-702-010 .... NV-1723-0001

MK-22 .... CG-1701-0001
MK-23 .... CG-1731-0001
MK-24 .... CG-1712-0002

MK-3 .... CG-1710-0007

MK-4 .... CG-1710-0006

MK-6 .... CG-1704-0020

NAV02 .... CG-1715-0054
NAV03 .... CG-1715-0055
NAV04 .... CG-1715-0056
NAV05 .... CG-1715-0049
NAV06 .... CG-1715-0050
NAV09 .... CG-1715-0051
NAV11 .... CG-1715-0044
NAV12 .... CG-1715-0030

P-00-1101 .... NV-1511-0002
P-00-1201 .... NV-1511-0003

P-00-3306 .... NV-1408-0003
P-00-3307 .... NV-0326-0001

Q-2A-0060 .... NV-1606-0018
Q-2A-0061 .... NV-1606-0020
Q-2A-0065 .... NV-1406-0003

Q-2D-0023 .... NV-1606-0031
Q-2D-0064 .... NV-1606-0038

R-100-6209 .... NV-1715-0001

S-500-0029 .... NV-1406-0012

S-8e-0010 .... NV-1729-0009
S-8E-0013 .... NV-0902-0001
S-8E-0015 .... NV-0902-0002

SAM-0 .... DD-0327-0001
SAM-C-11 .... DD-1408-0001

101-3 .... CG-1714-0004

103-3 .... CG-1715-0032

105-6 .... CG-1704-0008

107-5 .... CG-1704-0015

108-3 .... CG-1704-0019

109-5 .... CG-1708-0004

115-4 .... CG-1710-0003

119-4 .... CG-1714-0011

121-5 .... CG-1715-0038

127-5 .... CG-1715-0036

129-4 .... CG-1714-0012

132-2 .... CG-1723-0001

137-4 .... CG-1304-0007

143-1 .... CG-1715-0034

201-3 .... CG-1714-0003

203-4 .... CG-1715-0031

205-7 .... CG-1704-0007

207-6 .... CG-1704-0013

208-2 .... CG-1704-0018

209-7 .... CG-1708-0003

215-5 .... CG-1710-0004

219-8 .... CG-1714-0010

221-5 .... CG-1715-0037

227-6 .... CG-1715-0035

229-3 .... CG-1714-0009

232-2 .... CG-1723-0002

234-1 .... CG-1304-0003

237-5 .... CG-1722-0002

241-6 .... CG-1404-0002

243-1 .... CG-1715-0033

245-4 .... CG-1715-0063

28-A5522 .... DD-0505-0002

28-E-1 .... DD-0504-0004
DD-0504-0005
28-E-2 .... DD-0504-0008

28-G-5505 .... DD-0504-0009

28-O-5 .... DD-0504-0007
28-O-6 .... DD-0504-0006

28-R-701.1 .... DD-0504-0001
DD-0504-0004

28-R-703.1 .... DD-0504-0004
DD-0505-0001
28-R-703.2 .... DD-0504-0004
DD-0505-0001
28-R-F1 .... DD-0504-0002

309-9 .... CG-1708-0002

319-7 .... CG-1714-0005

332-1 .... CG-1723-0003

337-7 .... CG-1722-0003

405-3 .... CG-1715-0062

407-2 .... CG-1304-0005

408-1 .... CG-1715-0064

411-200 .... DD-1601-0011
411-201 .... DD-1713-0002
411-202 .... DD-1713-0001
411-203 .... DD-1601-0009
411-204 .... DD-1601-0001
411-205 .... DD-1601-0005
411-81C30 .... DD-1601-0009

412-101 .... DD-1601-0002
412-102 .... DD-1601-0006
412-110 .... DD-1601-0008
412-82B20 .... DD-1601-0008
412-82D20 .... DD-1601-0002
412--82E20 .... DD-1601-0006

413-1 .... CG-1704-0014
413-210 .... DD-1713-0003
413-81B20 .... DD-1713-0001
DD-1713-0003

416-3 .... CG-1708-0006

417-4 .... CG-0802-0001
41-751 .... DD-1601-0010

439-1 .... CG-1704-0016

441-2 .... CG-1704-0010

442-1 .... CG-1715-0039

443-1 .... CG-1704-0011

444-1 .... CG-1715-0040

445-1 .... CG-1704-0009

446-1 .... CG-1704-0017

450-7 .... CG-1722-0001
450-F1 .... NV-1205-0001
450-F2 .... NV-1205-0003

453-1 .... CG-1731-0002

463-4 .... CG-1304-0004

469-1 .... CG-1708-0005

472-1 .... CG-1715-0061

473-1 .... CG-1715-0065

475-5 .... CG-1304-0008

476-1 .... CG-1304-0006

479-3 .... CG-1710-0005

491-101 .... DD-1601-0004
491-81Q20 .... DD-1601-0004

4M-701 .... DD-1601-0007
4M-703 .... DD-1601-0012
4M-710 .... DD-1601-0003
4M-7915 .... DD-1601-0007

4M-F2 .... DD-1601-0007

50BA7921-1 .... DD-0504-0009
50BA7921-1 (USAF) DD-0504-0009

50ZX5144-8 .... MC-1402-0031

5220-2 .... DD-1728-0001
5220.7 .... DD-1728-0002

557 .... NV-1715-0694

560 .... NV-1715-0042

561 .... NV-1715-0685

562 .... MC-0803-0002

566 .... NV-1715-0711

567 .... NV-1715-0692

570-71Q20 .... DD-0504-0001
DD-0505-0001
570-71R10 (USA) DD-0505-0001
570-71R20 .... DD-0505-0001
570-ASIJ8 .... DD-1709-0001
570-F1 .... DD-0504-0002
570-F2 .... DD-0504-0003
570-F3 .... DD-0505-0003
570 (USMC) DD-0505-0001

5AAA79170 .... DD-0504-0002

5AAA79170 (USAF) DD-0504-0002

5ABD22230 .... DD-1601-0002
5ABD22231 .... DD-1601-0006

5ALA79131 .... DD-0505-0001
5ALA-79131 (USAF) DD-0505-0001

5AZA79150 .... DD-0504-0003

5OZD5724 .... DD-1601-0007
5OZX5141-1 .... MC-1402-0029
5OZX5144-14 .... MC-1402-0037
5OZX5144-15 .... MC-1402-0038
5OZX5144-16 .... MC-1402-0039
5OZX5144-17 .... MC-1402-0040
5OZX5144-19 .... MC-1402-0041
5OZX5144-2 .... MC-1402-0030
5OZX5144-3 .... MC-1402-0031
5OZX5144-4 .... MC-1402-0032
5OZX5144-5 .... MC-1402-0033
5OZX5144-6 .... MC-1402-0034
5OZX5144-7 .... MC-1402-0035
5OZX5144-8 .... MC-1402-0036

670-41B20 .... DD-1721-0001

670-601 .... DD-1721-0001

690-41K20 .... DD-1706-0002
690-620 .... DD-1706-0002
690-621 .... DD-1706-0001

740-301 .... DD-1719-0003
740-302 .... DD-1719-0001
740-303 .... DD-1719-0002
740-304 .... DD-1719-0004
740-306 .... DD-1601-0013
740-83D20 .... DD-1719-0001
DD-1719-0003
740-83F20 .... DD-1719-0002

7G-0011 (USN) DD-0505-0002

7G-46A DD-0504-0009

7G-5505 .... DD-0504-0009
7G-5522 .... DD-0505-0002
7G-5522 (USA) DD-0505-0002

7G-F3 (RC) DD-0504-0011

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REQUEST FOR COURSE RECOMMENDATION

The applicant for credit must fill out one form for *each* service school course completed. The institutional official is responsible for verifying from official military records that the student completed the entire course, and for submitting the form to the Office on Educational Credit, American Council on Education, One Dupont Circle, Washington, DC 20036, ATTN: Military Evaluations. *Please Print.*

1. *Exact* course title (*do not abbreviate*) ____________________

____

2. Service branch offering the course:
   - ☐ Air Force
   - ☐ Army
   - ☐ Coast Guard
   - ☐ Department of Defense
   - ☐ Marine Corps
   - ☐ Navy

3. Name of service school attended: ____________________

4. Location (installation, state): ____________________

5. Length of course (*in weeks*): ____________________

6. Dates of attendance: From: __________ day/month/year To: __________ day/month/year

7. Official military course number: ____________________

8. MOS/AFSC/NEC: ____________________

9. Course was designed for:
   - ☐ Warrant Officers
   - ☐ Officer Candidates
   - ☐ Commissioned Officers
   - ☐ Enlisted Personnel
   - ☐ Aviation Cadets
   - ☐ Noncommissioned Officers

10. Rank or rating upon completion of the course: ____________________

11. Please give some indication of subjects studied in course:

____

____

SIGNATURE OF STUDENT

NAME OF STUDENT

STATUS (FRESHMAN, SOPHOMORE, ETC.)

DO NOT WRITE IN THIS SPACE
OEC STAFF USE

SIGNATURE OF COLLEGE OFFICIAL

NAME OF COLLEGE OFFICIAL

TITLE

INSTITUTION

STREET

CITY STATE ZIP CODE

AREA CODE NUMBER EXT.

REQUEST FOR NAVY GENERAL RATE/RATING EXHIBITS

Officials should use this form only for requesting exhibits that contain the phrase, "Pending evaluation." As general rates and ratings are evaluated, they will be listed in the *OEC Newsletter.* When you want to obtain the recommendation for a newly-evaluated general rate or rating, identify the exhibit you are requesting by using the complete *OEC I.D. number* (e.g., NER-BT-001), and the title of the general rate or rating. Include the applicant's name if you would like the name mentioned in the OEC reply. Please check the form for accuracy before forwarding it to OEC. Submit the form to the Office on Educational Credit, American Council on Education, One Dupont Circle, Washington, DC 20036, attention Occupational Assessment Programs.

OEC I.D. Number	General Rate or Rating Title Please print; do not abbreviate.	Name of Applicant

Signature of Official

Name of Official

Title

Institution or Organization

Street

City State Zip Code

Area Code Number Ext.

DO NOT WRITE IN THIS SPACE
OEC STAFF USE

Please retain file copies of any recommendations received from the OEC Information Service.

AMERICAN COUNCIL ON EDUCATION

J. W. Peltason, *President*

The American Council on Education, founded in 1918 and composed of institutions of higher education and national and regional education associations, is the nation's major coordinating body for postsecondary education. Through voluntary and cooperative action, the Council provides comprehensive leadership for improving educational standards, policies, and procedures.

The Office on Educational Credit and Credentials is the Council's division concerned with credit and credentialing policies and practices in postsecondary education. The role of the office and its policy-making and advisory arm, the Commission on Educational Credit and Credentials, is to give attention to educational credit and credentialing policies for postsecondary education; to foster high standards and sound practices for the evaluation and recognition of extra-institutional learning; to foster and operate programs to establish and publish credit equivalencies for extra-institutional learning, and to advise postsecondary education institutions on how these credit equivalencies can be used in placing students in academic programs and in credentialing educational accomplishment; to assist postsecondary education institutions in providing people with due recognition for competency, knowledge, and skills, wherever and however obtained; and to provide people with an alternative means of demonstrating high-school-graduation competencies. OECC makes credit recommendations for testing programs such as the College-Level Examination Program (CLEP) and administers the General Educational Development (GED) Testing Program. OECC also makes credit recommendations for formal courses offered by the military and other noncollegiate sponsors such as business, industry, government agencies, voluntary and professional associations, and labor unions; for Army military occupational specialties (MOS's) and Navy ratings; and for home study courses accredited by the National Home Study Council.